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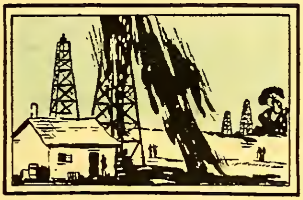

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Louisiana Nature Guardians

STATE OF LOUISIANA
UNION JUSTICE CONFIDENCE

Published Quarterly by the
DEPARTMENT OF CONSERVATION

APRIL
1936

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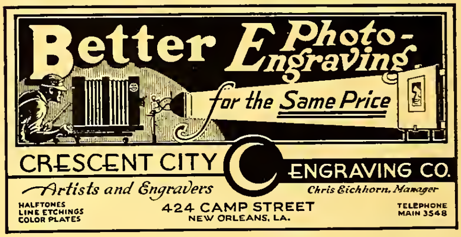

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Governor-elect R. W. Leche

GOVERNOR-ELECT Richard W. Leche brings to the governorship of Louisiana rich personal gifts that have had the benefit of a judicial training. Elected by a majority so overwhelming that it is without parallel in all Louisiana history, Governor-elect Leche has firmly expressed his resolve to carry foreward through four years of progress the vigorous and constructive policies of the late Senator Huey P. Long and the late Governor Oscar K. Allen.

Governor-elect Leche has set down as major principles the encouragement and progress of business interests and the betterment of the farmers and the people of the State in broad and effective terms. He plans to encourage the development of more industries in Louisiana. He proposes to establish a very valuable new State body, a State Planning Board, that should contribute greatly to Louisiana's development. To the farmers he proposes to give exemption from taxation on their livestock up to a certain number of head and exemption from taxation on their farm implements up to a certain value. Among the many other humanitarian measures he proposes to bring into existence are pensions for the aged and a wide and valuable coordination of the hospital facilities of the State so that citizens throughout all Louisiana may benefit from efficient hospital care.

This brief editorial comment upon Governor-elect Leche's accession to the State Capitol can do no better than set down in his own words the two concluding paragraphs of the inspiring address with which he announced his candidacy.

"I expect to be Governor of this State three hundred and sixty-five days a year for the full four-year term. There will be no back seat drivers or powers behind the throne in my administration. Every citizen will be able to consult with me and I reserve the right to consult with them. On matters concerning finances I expect to confer with those skilled in financial matters. On matters affecting business I intend to consult with businessmen. On matters affecting agriculture or labor I will seek the advice of the farmers or the representatives of labor. On political matters I propose to consult with my political friends over the State. On matters affecting the relations between the State and Federal Government I propose to confer with the officials in Washington and I won't need any admit card or passkey from Mr. Sandlin or his associates.

"In conclusion, ladies and gentlemen, let me repeat that I stand alone for, advocate and am pledged to carry on the constructive work of Huey P. Long and O. K. Allen. I know of no better basis for my administration than the motto of the

(Continued on Page 26)

Governor James A. Noe

THE sudden and tragic death of Governor Allen placed the gubernatorial powers in the hands of an unusual and able person, Governor James A. Noe,

Governor James A. Noe, like Governor Long and Governor Allen, has shown a constant and very sympathetic spirit in the interests of conservation. The Department of Conservation has always found him helpfully responsive and it was in recognition of this helpfulness that Commissioner Maestri named for Governor Noe one of the State's major fish hatcheries, the James A. Noe Fish Hatchery near Monroe.

Governor Noe gallantly served his country as a soldier during the World War and has been prominent in legionaire circles since that time. A successful business man, he is possessed of unbounded energy and possessed also of the keen desire to serve his adopted State.

Governor Noe has displayed great interest in the establishment of state parks in Louisiana and throughout his political career in Louisiana he has fully supported the aggressive and progressive legislation inaugurated by Governor Long and Governor Allen. It is fitting that his worthy name is added to the register of the Governors of our great southern state.

At the outset of his necessarily brief administration Governor Noe emphasized the necessity for a complete reorganization of federal relief in Louisiana. He made it quite clear that President Roosevelt's often repeated pronouncements that federal relief was essentially humanitarian and was and must be free from politics in its administration must be realized. He, therefore, brought about the beginning of a federal and state cooperation in the people's interests and in better accord with the recent overwhelming decision of Louisiana's electorate.

IN MEMORIAM

The Late Governor Oscar K. Allen

IT is often said that really great men appear to rule and to contribute greatly to the progress of their fellowmen only once in a long while. This saying and thought are fully exemplified in the recent history of Louisiana. Two great men have come and gone ,the like of whom shall not come again for many moons.

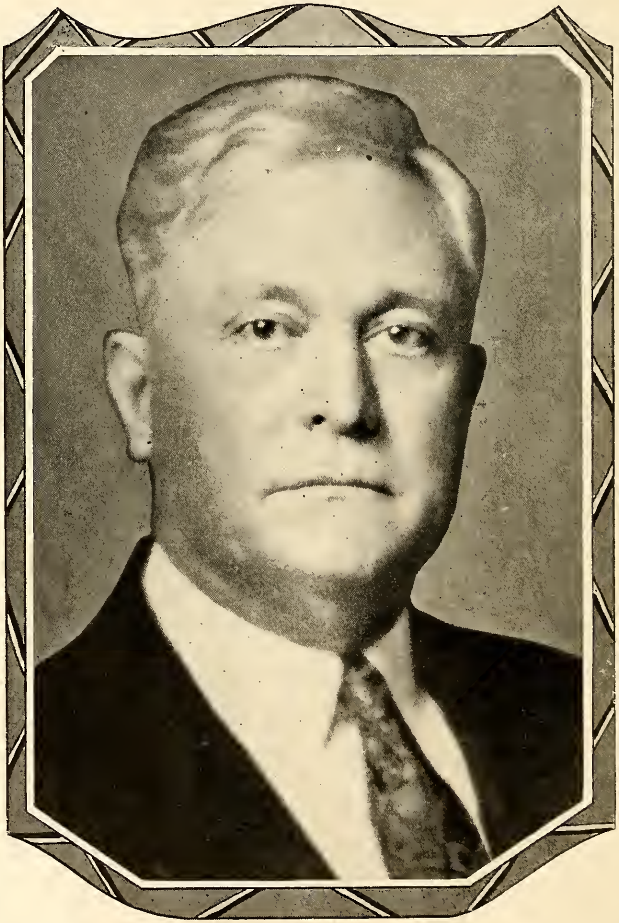
The death of Governor Oscar K. Allen was, like the death of Senator Huey P. Long, a tragic event in Louisiana's history.

Governor Allen was the competent and vital head of the most economical and the most business-like administration that the people of Louisiana have enjoyed in their entire history. No man possessed to a greater degree the spirit of cooperation and at the same time the ability to work as a leader as did Governor Allen.

Devoted to his wife and his family and centering upon them his first thoughts, he nevertheless accomplished a public life of leadership unusual in its breadth and in its success.

A successful business man, Governor Allen learned a practical philosophy in the school of hard knocks, a school that thoroughly fitted him for the position of "business Governor."

Never before had there been realized in the State of Louisiana such thorough team work in the administration of the State's affairs. Governor Allen inspired universal confidence and won unanimity of support.



Governor Allen was a real friend to the Department of Conservation. He never failed to cooperate fully with the Commissioner of Conservation, nor did he ever fail to show his real interest in the many problems of the conservation of Louisiana's natural resources. A lover of the out-of-doors, a great fisherman, and an ardent hunter Governor Allen was at heart a true conservationist. In recognition of his complete sympathy with Louisiana conservation, Commissioner Maestri named for Governor Allen the O. K. Allen Northwest Fish and Game Preserve, one of the largest inland preserves in the entire State. Governor Allen played a large part in bringing to successful accomplishment the creation of this great fish and game preserve which in the pleasure it will bring to lovers of the out-of-doors in Louisiana will long stand as a worthy monument to him.

One of the most striking characteristics of Governor Allen was his broad political philosophy which he used for the welfare of the people in terms of the State. An apostle of that school of political thought that dealt in state-wide welfare rather than in competing and petty interests of local units, Governor Allen accomplished great good. Never did he fail to be deeply appreciative of local self-government yet he held that the affairs of the State must be administered by the State and that progress of the (Continued on Page 29)

THE TWISTED MEMORIAL

A Brief History of the Wistaria Vine

By **CATHERINE B. DILLON**, New Orleans

In the South, where Wistaria grows so abundantly, little, if any, thought is given by the average person to its origin or to the derivation of its name. The vine's loveliness excludes consideration of anything else concerning it, yet, the history of this twining shrub is as fascinating as its physical beauty. Etymologists call the plant *Wistaria,* indicating that *Wisteria* is incorrect. However, the latter spelling is in common usage, and it is employed by many leading botanists and horticulturists for a good reason—a slip of the pen or an intentional act on the part of the man who coined the term. New Orleans has a *Wisteria* Street. Both forms are recognized, nevertheless, since the botanical name was derived from that of Dr. Caspar Wistar (born 1761), distinguished Pennsylvania physician and anatomist, when the genus is written *Wisteria,* the origin of the word is concealed.

Dr. Wistar, who wrote the first American textbook on anatomy, was a familiar, popular figure in the scientific world of his day. Weekly, he kept "open house" for students and visiting scientists, many of whom were indebted to him for personal aid and encouragement. At the time of his death, in 1818, he occupied the Chair of Anatomy at Pennsylvania University, where the Wistar Institute of Anatomy and Biology was later established in his honor.

Among those who enjoyed Dr. Wistar's hospitality was a young British naturalist, Thomas Nuttal (born 1786), who came to this continent around 1808, to remain thirty-four years, studying and writing many valuable books about the plants, flowers and birds of North America. Between 1825 and 1834, Nuttall taught at Harvard and served as curator of that university's botanical garden. He is reputed to have been a man of retiring habits and peculiar characteristics. A portrait and a life mask of this scientists, owned by the Gray Herbarium, both portray him as the "thinking type." During his residence in this country, Thomas Nuttall compiled four very important scientific reference works: *The Genera of North American Plants* (1818); *Journal of Travels in Arkansas Territory during the Year* 1819 (1812); *Manual of Ornithology of the United States and Canada* (1832-34); and *The North American Sylva* (1842-49). In 1842, Nuttall returned to England where he died in 1858.

The death of Dr. Wistar in 1818, inspired Thomas Nuttall to dedicate a genus in memory of his friend. When the *Genera of North American Plants* appeared, a glorious, growing memorial, yet, one destined to become a tantalizing puzzle, had been named in the physician's honor. In the text and in the index of his work, Nuttall spelled the genus *Wisteria,* but he added the following foot-note:

"†In memory of Caspar Wistar, M.D., late professor of Anatomy in the University of Pennsylvania, and for many years president of the American Philosophical Society: a philanthropist of simple manners and modest pretensions, but an active promoter of science."

The fact that the author was fully cognizant of the *a* in Wistar, coupled with his failure to change the *e* in the Errata of his work, caused much difference of opinion among authorities. Those who advocate the acceptance of plant names as originally published hold that the spelling of the genus was intentional; others feel that it was an overlooked error. Any suggestion would be a mere conjecture, but, considering that Nuttall survived for forty years after this publication and the matter remained unexplained, might not it have been one of those embarrassing oversights capable of causing humiliating annoyance to even the most punctilious writer? Scientists may take liberties where plant names are concerned—mere scribes must follow the mandates of Noah Webster and other dictionary rules. Of great antiquity, like the age-old families of ancient China, this vine "is no mushroom growth of yesterday," its "roots strike deep into the hallowed mould of the dead centuries." Called by any one of its many names, Wistaria is no less beautiful, but justice prompts one to give Dr. Wistar the benefit of the tribute intended in this dedication.

Wistaria is native to both North America and Asia. Its oldest name is kraunhia. The vine is a woody, climbing, flowering shrub with odd-pinnate leaves and lovely, pendulous, grape-like racemes. Scientifically, Wistaria has a large group of relatives, but, lineally, it belongs to the tribe of Galegeae and the leguminosae family, meaning

WISTARIA FRUTESCENS Bachousiana

A native American species of Wistaria. This old botanical plate, beautifully colored in the original, was produced in the mid-nineteenth century.

that it is a tall, perennial herb, bearing a legume, or seed vessel similar to a peapod. Legume means pulse—peas, beans and other members of this family are classified as leguminous, because their fruit may be gathered by hand without cutting. Belonging to the pea family, the single corolla of the Wistaria's pendant cluster is like a sweetpea or bean blossom. This individual flower is designated as papilionaceous—a fourteen-letter botanical term for "resembling a butterfly." The lower part of the corolla—the keel or carina—is darker in tone than the wings or upper petals. Colors include white, light blue, bluish-lavender, violet and purple.

After the blossoms have fallen away from the central stem, the Wistaria produces, from a single pistil, a long, linear, leathery and velvety pod, narrow at the top and wide at the bottom. When fully ripened, this pod is dark yellow-green with a plush-like texture. The interior has the appearance of kidskin. Besides a few undeveloped ovules, a pod usually contains two or more mahogany-colored beans. The matured seed is flat on one side and slightly convex or bulging on the other, resembling a kidney lobe in shape and color. If allowed to remain on the vine, the pods are thoroughly ripe in the late fall and winter, when they burst open. If the soil is rich enough, some of the germinating seeds that fall take root and grow.

Owing to cross-pollination there are so many types of Wistaria that a confusion of species makes it hard for horticulturists to confine the genus within the limits of a fixed order. Leading authorites quote from two to five species, as follows:

1. Two main species: Asiatic and North American.
2. Three species: Chinese (*W. Chinensis* or *Sinensis*); Japanese (*W. Japonica*); and American (*W. frutescens*).
3. Four species: The foregoing three and *W. alba.*
4. Five species: American Wistaria (white and purple); Chinese, including Japanese varieties, (lavender); Allen's or *W. Alleni* (violet); *alba* (white); and Magnificent Wisteria or *W. magnifica* (dark purple).

The vine most familiar in the United States is the *W. Chinensis* of East Asiatic, Chinese origin. It is sometimes called the consequana. Brought to this country in 1816, it was probably introduced into Louisiana early in the nineteenth century, for it adorned New Orleans gardens in the eighteen-forties. This species of Wistaria is the best as well as the most commonly grown type. The Chinensis has been known to produce branches between ninety and one hundred feet long. Its grape-like bunches of large, light bluish-lavender, pea-shaped flowers grow from one to two feet long and bloom before the pale yellow-green foliage develops.

W. Japonica, the species cultivated in Japan, is regarded by some authorities as a variety of the Chinese vine, but usually considered separately. Numerous varieties are listed, but the Japonica blossoms are all smaller than those of the Chinensis. The *multijuga* produces racemes that are often a yard in length, while another type of Japanese Wistaria, although loose-clustered and scanty in bloom, is very fragrant.

W. frutescens or *fruiticosa,* (meaning shrubby), the native American species, growing wild in the swamp regions of the South from Florida to Virginia and as far north as a part of Illinois, is not as hardy as the Asiatic shrub, but in damp, marshy soil it will attain a height of nearly thirty feet. Its foliage and dark, purplish-lavender racemes develop simultaneously. The latter are about six inches long. Cultivation adds greatly to its decorative qualities.

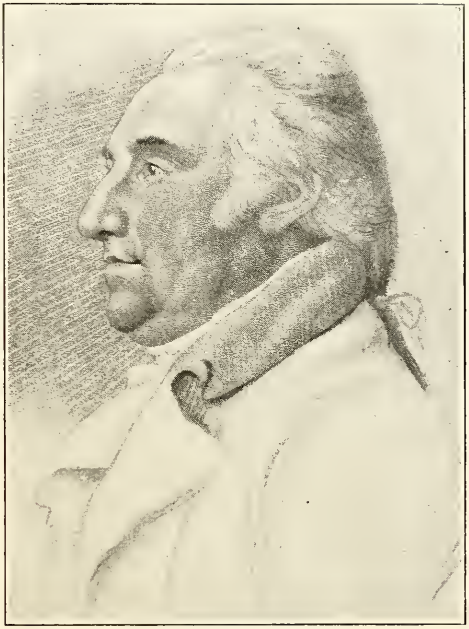
Since world war days, a mental picture lingers of a little gray frame house in Washington, on a side circular street, east of the Congressional Library. Unusual for a city that "goes in" so strongly for cheek-to-cheek architecture, quaint, shabby and paint-chipped, it stood apart from its neighbors with air spaces on all sides, setting high on a natural terrace or unexcavated hill. A rickety, unsafe-looking stairs led to its dilapidated gallery—like a Fontaine Fox Toonerville creation, it was not a thing of beauty—but the entire front was screened by a Wistaria vine that clambered, pell-mell, over posts and roof, *W. frutescens* blooming a profusion of purple clusters, amidst lovely green foliage.

W. alba, from the Latin, meaning white, is rare, even in Asia, yet, each species has a white-flowered variety. A very lovely example of white Wistaria grows in the garden of an old home on Heights Boulevard, in Houston, Texas. It is trimmed and trained to grow as a tree that each year Spring garbs luxuriantly in a mantle of snowy blossoms.

With the exception of these main divisions, the species are not very clearly defined. Notwithstanding the fact that the Chinese and American flowers are said to be odorless, a very fragrant, light blue variety is typically Chinese in other respects—probably a result of insect pollination—a cross between scented *Japonica* and *W. Chinensis.*

May is indicated as the blooming time for Wistaria. This is true in oriental countries, but here, in the Gulf Coast section, particularly in South Louisiana, the vine bears flowers in February-March, at the very latest, if molested by cold. Besides severe winter weather, with ice and snow such as witnessed during the 1934-35 season, lack of moisture and fertility retard flowering and stunt the blossoms.

By January, when winter winds and rains have removed most of the leaves, the vine is seemingly a mass of dry, crisp, twisted twigs. Soon these twigs are notched with tiny bumps holding the embryo clusters and the Wistaria budding begins. The protuberances are very close together on the snake-like turnings, just inside the node scars of former leaf branches. Ere long, these elevations become downy catkins, which, with mystic rapidity, turn into colorful flower racemes, attracting admiring attention and numerous honey bees. Heavy rainfall disrupts the abundant bloom, leaving the earth beneath carpeted with pale pea-shaped blossoms—wee fairy flowerets that dance on the breeze. Foliation follows quickly after the catkins unfold, and the lovely bunches, which endure about three weeks, grow scantier as the leaves acquire density.



Courtesy of the Wistar Institute Art Service.
CASPAR WISTAR, M. D.
1761 - 1818
The man for whom Wistaria was named.

The first leaves are light green-yellow, almost white. These gradually deepen to yellow-green. No less beautiful than the flowers, the foliage with its tinges of pink, here and there, creates a verdant atmosphere akin to that of a Barbizon study of the Fontainebleau landscape. By middle April, the vine is heavily leaf-laden. During May, and later in summer, small, scanty flowers appear among the boughs. When old leaves of other shrubs are turning red and gold, new Wistaria shoots take on a dark, crimson, autumnal color, and as they develop into branches many retain a reddish hue. In South Louisiana, under normal weather conditions, the Wistaria vine maintains its dense foliage until far into December.

Wistaria is easily propagated by seed or layer, but it does not thrive well in northern climates. As the vine is a little difficult to transplant satisfactorily, greater success is achieved through layer propagation. Left to its own devices, the shrub is often self-layering through roots sent into the earth by its trailing branches. The Japanese *multijuga* may be grown in dry soil, but as all species prefer rich earth, when layers or seed

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plants are set out, the ground should be well fertilized. If the young vine is originally grown in a wooden bucket, this may be sunken into the earth so that the roots are not disturbed. Good results are also obtained through sinking tubs or barrels around the garden space to be occupied by the transplanted Wistaria. The vine will thrive and grow more rapidly if planted away from the roots of live trees or stronger shrubs.

In our section, Wistaria requires little attention or pruning, but it may be confined within a definite area by cutting and trimming off shoots and branches that mar the desired plan of growth. Spur pruning, similar to that of the grapevine, used frequently in China and Japan, is practical when space for the vine is limited. For this type of culture, systematic training is necessary. The short lateral branches constitute "the spurs". If the vine has run amuck and twisted itself into an entanglement of permanent waves, the laterals are hard to segregate—determining a limb is difficult enough, much less a spur, but the main branches may be traced from the trunk, cut to uniform lengths, and with all of their offshoots treated in like manner, any additional trimming would be simplified. Spur pruning, annually, after the flowering season, produces a more abundant bloom. If this process is employed in connection with a very long arbor, as in the case of the grapevine, more than one plant would be required to completely cover the structure.

Wistaria vines have been known to survive for more than a century. Many of the Chinese species growing in New Orleans were planted prior to 1845. The size of a vine's main trunk does not always indicate the age of the shrub. An eighteen-year-old *W. Chinensis* has a base circumference over twenty inches. Its branches cover an area about thirty feet square. Yet, hardly thicker than one of its main limbs, is another vine, many years older, growing in the same city block. The latter was planted at the foot of a date palm. The tree's stronger root has stunted the progress of the Wistaria that coils around its trunk. In its meanderings, a vine often spreads over a wide territory—a twenty-five year growth has produced branches that when stretched to full length on either side from the central trunk, measure one hundred feet. One Wistaria has been known to have covered as much as a thousand feet of wallspace.

In the Orient, this beautiful climber, cultivated in great profusion, is trained over the tops of homes, teahouses and pergolas for both shade and decoration. Because of its myriad blossoms, China, where many places are named after plants, is known as the Flowery Kingdom. There, Wistaria, nationally admired and highly regarded for its beauty, is grown as a vine, but more commonly as a semi-bush. It varies in color from the scarce white to purple. The native Chinese name for Wistaria is "Tzu Teng". "Tzu" indicates that the flower is purple; "Teng" means vine. The two words are translated: "vine with purple flower". Tzu Teng adds its touch of richness to the humblest yard in China and vies with the splendor of lustrous jade and colorful Chinese embroïderies in the mandarin's spacious garden.

Japan uses flowers for family symbols in the same manner as the western world employs the coat-of-arms. Wistaria, called "Fuji", is a royal flower—the emblem of the Fujiwara, one of Nippon's three principal clans. This sign formerly represented the power behind the imperial throne, for the head of the Fujiwara house could select or depose the nation's rulers. The vine abounds throughout the empire. It is frequently trained as a large twisted tree that blossoms high over housetops and quaint little waterside fishermen's shacks. Casting picturesque reflections, its burden of lavender glory, sometimes interspersed with white, is mirrored in the silent waters of canal, pool and stream. The Japanese people lay great stress on floriculture, making a special study of flower arrangement. Flower-viewing holidays—grand nation-wide picnics—are held and the entire country turns out to see the blossoms of the particular plant in bloom at the time. The Wistaria festival falls in the fourth month of the "old style" Japanese calendar, or about the middle of May according to our year.

New Orleans has a Wistaria vine in almost every city block. Along Bayou St. John, it trails over fences and creeps up the columns of century-old plantation houses, creating intriguing bowers among magnolias and moss-laden giants. In the Vieux Carre, the vine drapes itself among the lacework of iron rails and grills, looks down from the brick walls of the Little Theatre, and curls, in snake-like fashion, about the old Spanish lantern in Madame John's patio. An interesting French Quarter study among local artists, is a Wistaria growing at 614 Chartres Street, between Toulouse and Wilkinson. Its main trunk, consisting of many limbs twisted together, makes several turnings, before separating into fork-like tines from which the flower branches shoot. The place, the subject of one of Alberta Kinsey's familiar paintings, is known as the "Courtyard of the Vine".

Uptown, Wistaria enhances the age-old charm

(Continued on Page 31)

BURIED TREASURE

A Radio Address by Professor R. A. Steinmayer of the Tulane University Delivered over Station WSMB, New Orleans, January 13, 1936.

Not many years have passed since the boisterous, riotous days of early Louisiana when the men of the Lafitte Brothers and Dominick You, whether on land or on sea, would swoop down upon the defenseless settlers and rob them. So short, indeed, is the time that vivid stories still exist today of the pirates and their vast treasures, gathered from countless ships and settlements. Popular legend has it that these adventurous brigands, unable to carry away all their ill-gotten gain, buried much of it, and from these stories have arisen the many wild rumors which have caused the soil of lower Louisiana to be dug and re-dug in a vain search for that eternal attraction to mankind, easy riches.

The geologist, however, in his searches in the earth, is not primarily interested in finding doubloons, louis d'or, or pieces-of-eight, yet, his explorations are often productive of material and information worth greater amounts of wealth than the buccaneers ever dreamed of.

We, the inhabitants of the Gulf Coastal Prairies of Louisiana enjoy a piece of good fortune to which we give little thought, which, indeed, we take almost as much for granted as the air we breathe. I mean the fact that we have been fortunately endowed with an almost unlimited supply of valuable natural treasure.

Of what does this buried treasure consist? How shall we investigate it, hidden as it is? Whom shall we call upon to assist us to locate it, learn the nature of it, and aid us to recover it? Obviously, the problem of the character, the location, and the winning of this buried treasure resolves itself into a science that treats with the origin, distribution, valuation, exploration, and exploitation of mineral deposits—GEOLOGY.

We cannot ourselves go and find what the deeply buried treasures consist of, but our scientific instruments will, in a sense, bring them near us. Thus, almost the whole interior of the earth is open for our exploration, at any rate until we reach an inelastic liquid substance which no wave can penetrate. Science, therefore, has furnished us with a sort of magic ray, which will take us into the earth, almost anywhere we desire to go.

Let us enter this magic ray and persuade someone to shoot us downward into the crust of the earth, that we may busy ourselves in investigating the structure of its thin shell and searching for the "buried treasure".

In our phantom underground journey we would travel for the most part through the same materials that abound near the surface of the earth, namely, muck, silt, sands, and clays. Occasionally, at varying depths below the earth's crust, we should encounter mineral deposits foreign to the substance in which we are travelling. These have been thrust up into the sediments bowing them into subsurface domes which house the buried treasure.

Let us get out of our ray and examine these "hidden masses", commonly called salt domes. We shall find that they consist essentially of deep-seated, subcircular mineral cores, varying in diameter from a fractional part of a mile to more than two miles. Their thickness may be measured in thousands, if not tens of thousands, of feet. The core of the salt dome is composed of salt which may be 99.4% pure, although streaks of other substances often occur in the salt cores as impurities.

Assuming that all the salt can be recovered from the 160 or more known coastal domes, if the use of salt continues at Louisiana's present rate, I estimate that it would take 333,333 years to exhaust the known salt reserve of the Louisiana and Texas domes alone.

The salt core may or may not be covered with a cap from a few feet to several hundred feet in thickness, consisting of various minerals, such as limestone, gypsum, anhydrite, or calcite. In some cases where this cap does occur, it is of great economic value, for in the cap rock of a few of the domes, we would find in addition to other minerals, SULPHUR. Where it is found, it occurs generally as a secondary mineral in the zone between the limerock and anhydrite. That it occurs in no small quantity is shown by the fact that in a four-year period, Louisiana alone produced sulphur to the amount of 10,000,000 tons.

Occasionally in the cap rock, and often in the sediments that have been broken through, pushed up and sealed off by the salt itself, there occur commercial deposits of oil. With enormous saline bearing beds theoretically enveloping the entire earth, and the American salt domes' almost inexhaustible supply, sufficient for the needs of man for milleniums to come, surely there had to be some greater propelling force, something of more intrinsic value and something much more romantic to man than the salt itself to spur him to gamble his very all,—self, fortune, and friends,—in the quest of new salt dome discoveries. A salt dome essay would not be worth its salt without an allusion to the black magic associated with it, OIL, the lure of which, during its short economic life, has caused greater anticipation of joy and probably more sorrow to the people of the world than the combined discoveries of all the gold and diamond deposits.

In the Gulf Coastal region, the first oil was discovered by Captain A. F. Lucas, when he drilled his famous Spindletop gusher in 1903. Large wells were brought in, quickly breaking the oil market. Then, just as suddenly, the wells stopped producing and it was not until 1926 that a deeper producing level was discovered and revived the booming days of the 1900s. In 30 years, this field produced more than 107,000,000 barrels of oil, and is still producing, there being a larger output now than in the past years.

One can easily see that our imaginary underground trip has not been in vain, for we have discovered the location and constitution of our buried treasure. So we begin our upward journey to the earth's surface.

Absurd and fanciful as this imaginary trip may seem, still it is no more ridiculous than methods that have been used in the past, and are being used to a certain extent today to locate "buried treasure", both natural and artificial. The number of persons who still put trust in queer water, ore, hidden treasure, and oil finding devices and claims of occult powers is astounding. And, strange as it may seem, the believers in the "doodle bug" fraternity are not solely composed of hillbillies, but include geologists and engineers as well.

Rods and staffs have long been used by magicians, sooth-sayers, augurs, and diviners in the search for water, minerals, witches, criminals, Protestants, hidden treasure, lost animals, and the points of the compass. In recent years, some of those who consider themselves more enlightened than their shyster brethren have discarded the natural divining rods of their omnipotent forbears, and conjure from the fairies and pixies through mechanical "doodads" the divine powers to locate hidden wealth. It does not matter whether their supernatural instruments are so constructed that they violate all the basic laws of physics. They will gullibly explain its operating principle to laymen in terms of the cosmic ray or Einstein's theory of relativity to more effectively mask its psychological principle, as stated by P. T. Barnum: "The public likes to be humbugged".

The absence of surface indication of the buried treasure has been the motivating reason for the rapid development of the new science which may not only detect, but measure and determine the size, shape, and location of the masses even though they may be buried under thousands of feet of sediments. The varying differences in the physical properties of the salt domes and the formations surrounding them are ideally suited for and give impetus to the practical applications of geological prospecting, the science which has furnished the magic key to investigate the natural phenomena which find explanation in physical laws.

As we stand upon the earth's surface and observe its density with our eye, its rigidity with our foot, we often wonder whether we can penetrate the solid mass except with the drill or an explosive. Yet when one stamps his foot the very act sets up waves similar to sound waves of great depths. With respect to its opaqueness we must remember that the human eye is sensitive over an octave of colors, while we have instruments that produce or receive light or electromagnetic waves varying from the hard X-ray of 10^{-9} cm. to long radio waves with a wave length of 10,000 meters or more.

Thus, both sound and light do pass easily through the rocks and earth if we but choose the proper sort of sound and light, and we may hear the echoed messages and see the otherwise hidden picture, if we but use the proper sort of ear and eye.

In geophysical prospecting the method consists of a sending device that produces messengers which are dispatched into the earth, and receives and decodes the report by means of a receiving device when some of these messengers return. We shout down questions and the ore whispers its answer back.

Of the messengers we may send, the principal ones are electrical currents, electro-magnetic fields of various sorts, or mechanical vibrations. Of the messengers which are always present, whether we will use them or not, the principal ones are gravitational attraction, the earth's own magnetic field and the fields it automatically induces in magnetic material, natural emanations from radium active rocks, local thermal variations brought about by diverse processes or chemical changes within the earth, and the natural earth currents due to the battery action of certain sulphides.

(Continued on Page 29)

FISHING FOR FUN

By STEVE BENEDICT, New Orleans

This is a story about fishing for fun. It is not intended for those men who drag long seines over soft mudflats or who run catfish lines so they could eat and dress and buy more catfish lines to run. This story is written solely for the man who ever so often breaks out in a light mania, which makes him forget everything but rod and reel. Hot suns do not bother him then, nor yet mosquitoes that sting or ants that harvest his noonday lunch. In this state of mind he will gladly pay a dollar or more per pound for fish, and he will brag about it to boot. I know him well. He is the finest of fellows, a prince as a companion. He is a nature lover, a sport, a braggard, a good-natured liar—a gentleman. If you are of that breed, then read my little story. You will profit by it, I am sure. If you are not, then pass on, please. This can never interest you, for it can interest only those who go fishing for fun.

Fight chance. These are the lures of fishing for fun. These tear you from your desk, from behind the counter or behind the plow. They set you dreaming; they mingle with your blood and make you mad. Life is part gamble and part fight. At heart each of us love to take a chance, each dreams of pitting his brawn and brain against some adversary. Deep within every mother's son of us is a lightly sleeping caveman, and every now and then he awakes and is far indeed from satisfied with the desk or the ribbon counter or the mechanic's bench. What he demands is life in the raw, and you had better satisfy him or he will never leave you at rest. Some see bull-fights to satisfy them, some scrap among themselves, others go hunting or hike in the woods, but you—you go fishing for fun.

Vacation time arrives. The days are hot and long and lazy. Out of a steely sky the sun bakes the naked city pavements. Far away, in your mind's eyes, the grass looks soft and the trees very green. Your slumbering caveman awakes. Unconsciously almost, you reach for rod and reel, and then, after that, you cannot rest. Am I wrong?

But let us cut this introduction short and get down to business. You are off. Several of you have developed the symptoms at one time. You have clubbed together and have finally decided on some place to go. Each one inspects his outfit (paraphernalia, if you are of the big-browed set). What hooks to use? What kind of line? Bait? What is best? "Shall we bring it or depend on getting some down there?" "Bring the dipnet along, fellows." And so on and so forth . . . yet, just the same, I have found out enough about deep into the night, over the steins, at the Dutchman's on the corner.

And thus, here my tale begins.

I have guided you, not many, just a few. And yet, just the same, I have found out enough about you to warrant these few advisory words. I have garnered them from the mistakes I have seen you repeatedly make; from the questions that you kept asking me. Remember down there at Redfish Bay?

First of all, a man who has not fished much has to learn this: It is oftener that you do not catch fish than that you do, and quite a bit oftener at that. Ask anyone who has fished steadily for several years. And so patience—that's what you will need most to take along with you on every trip. For fish are strange folk. They do not always play according to Hoyle or any other set rule. They may bite here today, there tomorrow, without rhyme and without reason. The day might be fine, the water just right, the tide O. K., the bait of the choicest, the wind could not be better if you ordered it yourself—and yet not a nibble. And on the other hand, I have caught them already in muddy water; in wind where the skiff dragged its moorings; on bait that a buzzard would have left alone. Maybe they were starving, I do not know. But you will get used to all this later on, after you have fished long enough.

But I am wasting my paper and your time. I started out to give you a bit of advice on how to fish, and here I go rambling on just as if . . .

"Where are we going, down the Delta? Well, what hooks will we need? Shall I take my coat?"

It is a novice, of course. It is his second or third trip. Lake Pontchartrain and ten ounce croakers have so far been his boastful limit. Well, he will meet up with something else down below, never fear. He will have cause to brag.

Now, I know absolutely nothing about a rod and reel. Few men who live by catching fish do. A rod and reel is sport, true enough, but true too that it takes time, and time to a fisherman, as to any other business man means money. He cannot waste precious minutes playing at war with a fish. He must land him right away. But just the same a hook is a hook, whether it is on a rod and reel or on a trot line or a common slaughter pole. And just now I would like to comment on hooks.

The Grave Matter of Hooks

Left hand hook; right hand hook. No, I am not trying to be smart. This is earnest. It is school. Pick up a curved hook and hold it in front of you. In most hooks the curve or twist (held this way) turns left. Practically all long shank trout hooks and the cheap wire trot line hooks belong to this lot. Snapper hooks are also left handers. The right hand hooks are those short stubby bronzed ones—sturdy little fellows—commonly referred to as sheepshead hooks. Take a few along, they will come in handy. And never be afraid to use them, even the smallest one will hold a ten pound fighting red.

For sheepshead take along a few 1/0 sheepshead hooks. (Note: Sheepshead hooks are not measured as are the others. A 1/0 sheepshead hook is almost as big as a 6/0 ordinary hook, though not as long. The size of any hook is the measurement from across the point to the stem or shank, and not the length.) A 2/0 hook is a bit too long. Sheepshead have small mouths you know. And be sure your hook is twisted. A sheepshead's mouth is one solid, jagged millstone of teeth. You will always catch him on the side of the mouth, or close to the edge of it. If you missed him look at your hook point. Chances are he has bitten it off. Throw it away. And when you take Mr. Sheepshead off the line, for the love of Pete, be careful. He will bite you, he will stick you, he will slap you, he will scratch you, he will . . . The best method is to let the guide do it. Maybe he knows how.

Straight hooks are fine for reds and drums, but not so hot for sheepshead. The points break off too quick on his powerful grinders. Personally, I prefer a twisted hook all the time, for any fish. Prejudice, maybe, but I do not know, I have always done better with them than with the straight variety. However, never curve out a straight hook. It takes away its temper. So throw in a few 6/0 O'Shaughnessies (Harrison is printed on each hook. They are English made. Five cents each.) A 6/0 is plenty big. It will hold a 25 pound bull, if you can. And if you would like to take home a few small drums and croakers or a pound and half rat red or two, take along a couple of 4/0's too—just for luck.

Never buy cheap hooks, wire hooks. At the end of the trip they will cost you tenfold. A sheepshead or a big redfish will straighten them out for you before you have pulled him halfway to the boat.

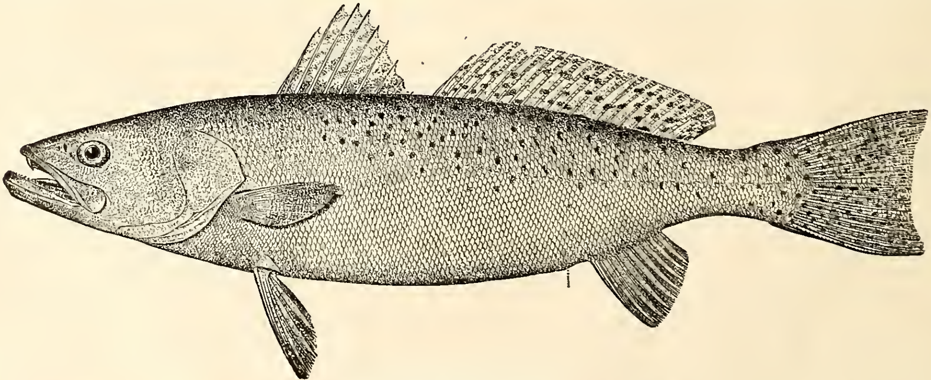
For trout use those long, thin, slender hooks. A trout has a very soft, large mouth, and he is a fighter. A short hook will catch him in the mouth, and the chances are he will tear it wide open before you could get him in, and he is gone. He must be caught away down deep. Ask for long shank 4/0 trout hooks when you are going out to Breton Island to give those big speckled fellows hell.

And Now How about Bait?

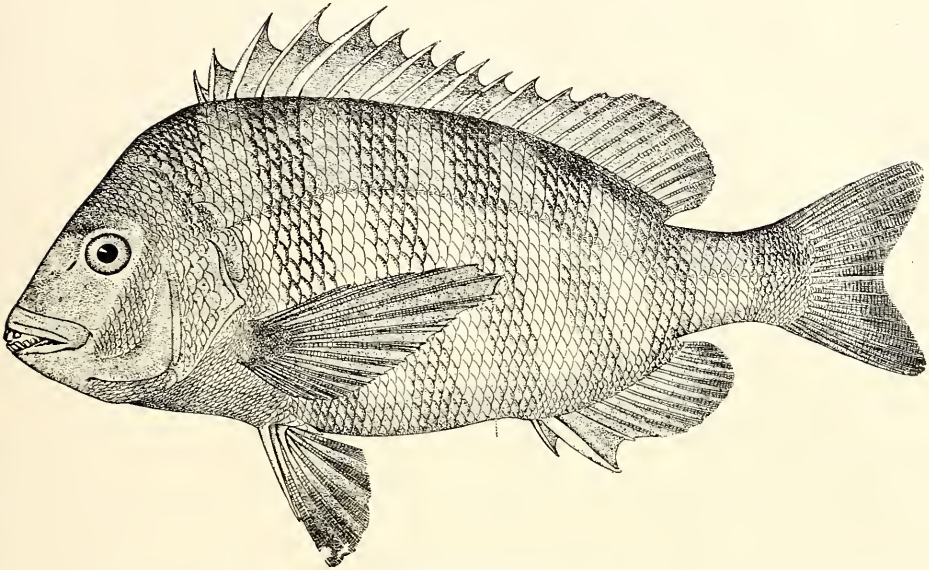
And that is for hooks. What is next?

Bait. Oh, yes!

Live shrimp, by far. They all fall for it. Take a cast net along, do not be lazy. Learn how to throw it. It will not take long. Of course, it pays to buy shrimp in town and take them down iced, to make sure, but the moment you have caught or bummed enough fresh shrimp, dump the old stuff over the side. Mullet is good too, especially for reds. Some good fishermen even swear by it, but somehow sheepshead do not care



THE SPECKLED TROUT
Not a Trout at all, but a member of the Weakfish Family and closely allied to the Croakers, this species is one of the most sought after of all our sea fish. The record for Speckled Trout is 16 pounds.



THE SHEEPSHEAD
The Sheepshead, although he nibbles the bait and takes his time about getting himself into trouble, gives, nevertheless, great sport to many a fisherman.

so much for mullet. They will even prefer crab to it.

In a pinch, fiddlers will do. Sheepshead like fiddlers. Reds I have caught on tiny croakers already, and many a fine one on crab. For a trot line crab is best. It lasts the longest and does not attract gars. But for pole, rod or handline use shrimp—exclusively.

Many a good fish has been lost just because the fisherman did not know how to put on his bait. Put your bait on so that in order to get it the fish will have to take the hook too. Cover the hook well with it. Here is what I am talking about: Pinch off the head and throw it overboard nearby, as a lure. It may help a bit. Then stick the hook through the tail end of the shrimp and curve it with the hook. There. Even the nibbling type will sooner or later have to grab your hook. As for a redfish—huh! Once he snaps at it, he is gone. Bait stuck on haphazard—Lord! Just as if a fish did not have any sense.

Crabs. Best not to use the claws at all. They are so hard to put on right. Cut a fair sized fellow (cut, do not hack) into four or six equal parts. Stick your hook so that it will not pass through any of the shell parts, for that will only act as a sort of sheath. There is a way. You will find it easy enough if you try. Do not crush the crab. It will fall off your hook if you do.

Cut mullet into half-inch slices, or a bit thicker. Run your hook through the white underpart, twist, and then run it the second time through the flesh. Mullet is soft bait. A fish nibbles it off your hook quick. Gars and sharks are crazy about it, and ditto for crabs.

Some people allow a tiny bit of the hook to stick out of the bait. To others this method is little short of inexcusable. "Cover your hook all over!" they will yell at you from halfway across the bay. But that is a moot question. I have caught fish both ways. Also I did not catch fish both ways.

In re baiting a spot. Many a fisherman is in favor of it. Many think it a fool's idea. "They will eat that stuff and leave your bait alone," the latter folk will tell you. Others assert that it attracts them. I lean a bit toward that view myself, especially when throwing for shrimp. Break up clams or oysters and throw them along the shore. Then wait awhile and then go back there with your cast net. You will see. I think it is a good idea to bait a spot.

I have a good friend. His name is Big Mike, and he is a fisherman for real. One day Big Mike and several other Dalmatian Slavs were seining somewhere on the Louisiana Marsh shore. They had a thousand foot net and yet all day long they caught nothing. They were disgusted, ready to go home. "Wait," says Big Mike. "Let us fish some oysters and crush them and throw them overboard. No need to go in with no fish." So they pulled over to the natural reefs and fished a few barrels. Then they crushed them and threw them over, into about three feet of water. They waited awhile. Next they circled the spot with their net. Result: Three barrels of sheepshead. It paid to bait that spot all right.

No exaggeration. No fish story this. Men who live by fishing seldom lie about fish. In fact, it usually is the opposite. They do not want the other fisherman to go there too. Business is business, you know.

AND THIS IS HOW THEY BITE

And this is how they bite (as a rule). A redfish grabs it and runs. No hungry 'bo ever hooked teeth swifter and harder into a hunk of pie than a hungry red into a nice succulent shrimp swinging on an O'Shaughnessy 6/0. Use a stout rod for him and a strong line—at least a 35 pound test, linen or silk. It does not have to be so long. A redfish is not a tarpon. Fifty feet will do fine. But be sure that it is strong, and a big ditto for the pole. I have seen a big bull break Mr. Vacarro's rod, and then when he grabbed the line, it gashed deep into his hand for two or three inches. Oh, he got him in, all right. We weighed him (her, rather, for the bull, paradoxically enough, is the female of the species) in camp. Twenty-seven pounds! No wonder. Yes sir, your red is a fighting fish. I have seen more than one man sweat as a ten pounder tugged for dear life and splashed white foam madly at the end of his line. And a ten pound redfish could put up a hundred pound fight at the end of a pole, so hold your rod with a grip of steel for the battle is on. He is ten pounds heavy, and every blessed ounce of him is fighting red. So hold tight; play him; pull. Swear all you want, but do not let go. And learn this: Once you get his head out of water, he is yours.

Speckled trout bite about the same. They too, like the hungry 'bo, grab it and run. A twenty-four foot slaughter pole (bamboo—25c) gives the best results here. But if you do not know how to use one, the fellow who does, in a good run of trout, will catch ten to each one you land. You have to be quick. It is no place for joking or for sleep. Alert, that is the word. Watch that cork. The moment it pops you jerk the fighting speckled beauty out of the blue splashing water, and with that same swing hit him hard against your chest. Two seconds later he must be off your hook. But be damned sure that you can tell he is by the way he bites. It would not be so funny if you smashed a hard head cat against your belly.

Sheepshead, crabs, stingarees, drums, catfish. These are the nibblers. They all bite pretty much alike. They seem to play with your bait, though a slow tautening of your line usually means a crab. He likes to walk home with your bait.

Photograph copyright by Mr. Henry E. Belden.

THE FLASH OF A SILVER KING
This splendid picture taken in Louisiana waters shows a fighting Tarpon in action.

Sheepshead and drums have such small mouths that they can seldom gulp down a big shrimp with one lick. So, if these are biting, (and it is not hard to tell) change to a smaller hook—a good hook, or else a big sheepshead will bite it in two.

And for the love of Pete! be on your watch. Keep your eye steadily on that cork; if you are using a handline be ever ready for that telegraphic quiver. You are not fishing redfish now, you know. A sheepshead takes his time, so you do the same. Do not be too anxious. No rush. You will only rue it the next moment. Remember once more, a sheepshead has a very little mouth and it is chuckful of teeth. I will repeat: He nibbles. And unless the baited hook is deep enough in his mouth it will merely grate along his millstone like crushers, and he is gone. So let him nibble your bait a little while; even let him take the cork under once or twice. Then jerk. And then fight. For a sheepshead is not any slouch either.

And when you feel a deadweight tug—like a piece of lead—it is a stingaree. All yours. Be careful.

Play Your Big Fish

Play all your big fish. Let them tire themselves out. Then they will come to you, belly up, like so many little babies. A big fellow will tear his mouth if he is not hooked good and you pull back on him or jerk against him too strong. With a long bamboo and a reelless line it is different. It is a steady strain—no jerking. The pole takes up most of the tension.

Now—how to handle fish once caught. A good way is to let the guide do it. That is what he gets paid for anyhow. Besides he knows how. But if you are foolish enough to like to handle your own, here is a rule or two. Bend a fish into an S, head up. Never grab a fish by the eyes. You will lose him, sure as hell. Take it from me. I have seen professional fishermen lose some nice fish that way. Do not be afraid to stick your thumb into a redfish's mouth. He could not bite you if he wanted to. With your other four fingers through his gill slits and your other hand firmly gripping his tail and pushing upwards, I will guarantee you a twenty pound bull will find it hard to get away.

Fish Can See You

Carry a small fish box with you, or a sack. Tie your fish overboard. They will keep better that way. Do not fish out of a gas boat. Fish do not like to eat gasoline any more than you or I do. Besides the propeller scares them. No noise. No singing. Even the oars must not squeak. Try not to paddle or row too roughly. Tie your skiff close to shore. A small pirogue or canoe or dinky, I believe, is the best. It could be shoved into the canes or grass. Avoid real clear water. Fish have eyes. Do not fool yourself, they can see you. Be careful how you handle your fish when you are pulling them in. Do not be rough. Do not jerk. Take it easy. And never let a fish get under the boat. He will pry himself off your hook every time. Sheepshead come close. I have seen two and three at one time right by my boat. Also a sheep will not always run away once he manages to get free of your hook. Like a gar, he will come back for more. He will hang around and get caught all over again. I have seen them in clear water follow my bait as I dragged it along.

Trout and redfish, however, are made of different stuff. They are scarey. They refuse to come close, especially a trout. You must throw your line way out or use a long pole. For trout a twenty-four foot bamboo is best. Rig it up with a No. 12 soft line, a light lead, a small cork and a think shank, extra long, 4/0 hook, twisted preferably, and you are all set. Bring your dipnet too—all the time. It is never in the way.

Some more. A drum will turn tail to you. I have noticed that time and again on my trot lines. Sheepshead, like gars, pull down. A redfish—oh, he jumps and he splashes; he dashes, he darts, he bucks; he raises all manners of hell.

Oyster Reefs Are Best

Fish bite best over oyster reefs—all kinds of fish, I mean. But be sure to use a cork, else you will lose your sinkers and hooks all the time. If you are using a handline, throw it about ten or fifteen feet out from the shore, away from the oysters. You will catch crabs, at any rate.

Give your hook about two feet of line below the cork. Fish as close to the shore as you can. That is where they are, by the grass, feeding on the little stuff or nibbling the barnacles off the roots. You will see the canes jerk now and then, if you watch close enough, or even their finny backs pop out of the water; or maybe a drum's tail flopping, as his head is deep among the oysters.

Redfish like brackish water best. Drums bite mostly on the bottom. Like catfish, they are bottom feeders. But for your sheepshead and redfish, fish close to the grass.

Some sports prefer to sit in one spot (especially if it is a shady spot) and wait. Other sports consider this method poor fishing. "Follow the fish," they say—where to, I cannot tell. But my guess is, that it is simply luck. There is no hard and fast rule. Sometimes you catch them sitting and waiting, and sometimes you do not. And ditto for the other way. It is all one.

Maybe you have an idea that all you have to do is to drop your line over the side and pull in a big fish. Oh, yeah! Forget it. That may be O. K. in a hatchery, but it is the bunk any place else. You have to wait for your fish—and pray. And for each day that you make a good haul, there will be a dozen days when all you will bring home will be a few croakers and a half-pound drum. Take this from one who has gone out day after day to fish—so he could buy overalls and grub.

Two Is Company

Let your line go out with the current or tide, never against it. It will go under your boat, as sure as you are born. Then you will have lots of trouble should you hook a big one. And do not overcrowd a boat. Two is enough in a small skiff or duck-boat; one in a pirogue. Keep very still. Fish are scarey folk. Never throw fish-guts overboard where you are fishing. It will attract every crab on the bottom of the sea, and a lot of gars besides.

If you are using a handline, get 12 or 16 soft or medium. Hard laid curls up so quick, besides being tough on your hands. Braided line is the best. Never use rotten or old line, you will rue it —swearing is useless and too late. Dry your lines well, stretched out, after each trip. That is a money-saving scheme.

If you are using a long pole (on reel) be quick, once you have him hooked. But be careful. A red will grab it, but a sheep or drumfish must be allowed to nibble awhile before you jerk. Then once he has that cork under and the hook in his mouth, hold tight to your pole. Shove the end of it into the pit of your stomach and pull hard. Never slacken. He is gone, if you do. Keep your balance. And then once you get his head out of water . . . Oh, boy!

And if you should catch a shark, beat it. The fish already have done so. And you just as well do so too. Then when the gaff-tops and whitings start in on you, hunt newer fishing ground too. That is the best formula I can offer. They will never leave you be; they are merciless and their name is legion plus. Your bait is gone before it is a foot under water.

Fish the Shore-line on an Incoming Tide

With the incoming tide, I have always found the shore-line to be the best, especially over oyster beds. Fish close. But when the tide is going out good, park your sweating carcass at the mouth of some bayou, or up in it a ways. The fish are coming out, following the mullet and the shrimp. Never fish when the tide is real high and everything is under, nor when a high river has made every bit of water look like chocolate. You will only be wasting your time. Better stay home and brag about the big ones you have lost. When the water is over the land the little fish are in the openings among the canes and mash grasses, and the big fish, as you already know, follow the little fish. Too, when there is lots of bait jumping in the water you will have but little luck. Well-fed fish do not bite so hot.

Flounders you will spear. Any good sandbeach or sloping mudflat will do. Find one. Make sure that the water is clear. Then wait for a quiet, moonless night. Wind will spoil everything. Wait until the tide is fairly high. Then get a good torch, you can buy one on Decatur Street in any fisherman's supplies store for about two dollars. Also get a prongless spear and a sack. Take a partner along with you. Make him carry the sack. Walk slowly in about eight inches of water, and be careful not to stir up the bottom. You will see Mr. Flounder plain enough. He will be taking it easy, lying flat on the mud or sand. Now is the time you have to be real quick. Your light blinds him only for a little while. Spear him. Do not let go; keep pressing down on him firmly. Never mind his splashing. Then let your partner put his hand under the flounder—the prong of your spear between his fingers—pressing upward. Walk ashore together. Put the flounder in the sack and go get another.

But be careful. Make sure it is not a stingaree —his tail is bad medicine. It is not hard to tell the difference.

Any beach or flat at the Delta mouth is good floundering—Port Eades, Burwood, Redfish Bay. Breton Island has those big ones—eight, ten pounds—flukes, they call them. Try a fluke on a spear point once. I will say you will have some fun. Better bring two partners along.

My idea of good fishing is winter fishing. For every fish that you catch during the warm months, you will catch ten during the colder ones. And that is no hot air either. Ask any good fisherman. They hardly ever fish during the summer days. Winter time—that is when the big fellows come in; the thirty-pound bull reds and the big drums, half again as heavy. Only they do not fight so well—if that is what you are after. They are dormant; cold. A couple of winters ago a partner of mine—Joe—caught a twenty-five pound redfish in a pair of oyster rakes. Believe it or not.

(Continued on Page 24)

Annals of the Live Oak Society

By EDWIN L. STEPHENS,
President, Southwestern Louisiana Institute,
Lafayette, Louisiana

FLEXIBILITY IN THE CONSTITUTION

It will be remembered that the Constitution of the Live Oak Society was proclaimed in the *Louisiana Conservation Review* in April, 1935—one year ago. The jurisprudence underlying this document was derived from those ancient lawgivers who inculcated a respect for age and character as the best foundation for society. Hence the sovereign membership of the organization was to inhere in the live oak trees themselves—and, in particular, in a selected group of such trees known or suspected to have reached or passed the age of 100 years. The Constitution was framed to meet all reasonably predictable needs of Live Oak Society that might arise in the ordinary progress of a few hundred or a few thousand years. And yet it was recognized that possible demands for alteration and expansion should be foreseen and provided for; hence the familiar device for occasional amendment was duly incorporated. And, indeed, this provident feature of the organic law of the Society has already been invoked, just as in the case of the well-known Constitution of the United States of America. Amendments have been started during the very first year of its existence. For example, it was noted that no provision had been made for the group membership of Groves and Avenues and Multiple Trees—some of the loveliest forms of live oak life. This omission, of course, had to be immediately corrected; and, therefore, it was ordered that the following amendment should be adopted at the first Semi-Occasional meeting of the Society: Article V, on Membership, shall be amended by the addition of a section providing that Multiple Live Oak Trees, and Groves, and Avenues, of live oaks, shall be eligible for membership, either in the main Society, or in the Junior League, according to their qualifications as to age.

Furthermore, it soon became apparent that legal interpretation would be required in various questions arising. One of the By-Laws, for example, Section 6, requires that members shall not be whitewashed. And an interesting case soon came up. Doctor W. D. Haas presented for membership the beautiful grove of live oaks on his beautiful Oak Hall estate near Bunkie, Louisiana. He wrote that he was celebrating on November 15,1935, the one hundredth anniversary of the acquiring of this splendid property by his great-grandfather, Roger Banks Marshall.[1] He enclosed photographs of these lovely trees, which disclosed at once that they were all whitewashed with a glaring and inextinguishable whiteness! What to do? Fortunately we had just provided another amendment (to Article VII of the Constitution) calling for the appointment of an Attorney-General for the Society, and had succeeded in inducing that distinguished jurisconsult, Judge Horace H. White of Alexandria, President of the State Board of Education, to accept the office. He had commented with favor on the Constitution of the Society, and in a manner not incomparable with the famous remark of Gladstone upon the Constitution of the aforesaid United States of America.[2] So we referred this Oak Hall case to him and obtained the following learned opinion and official ruling:

WHITE ON WHITEWASH

RULING No. 1

Alexandria, Louisiana,
October 25, 1935.

In Re: *The Live Oak Society—*
Membership Roger Banks Marshall
Live Oak et als—Accused of Whitewash.

As Attorney General of the Live Oak Society, I have been called on to render an opinion as to the eligibility for membership of the Roger Banks Marshall Live Oak and eight others accused of being whitewashed.

While the crime of whitewash or being whitewashed ordinarily bars live oaks from membership in the Society, an investigation of this case shows:

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[1] A nephew of the great Chief Justice. Roger Banks Marshall was the son of William Marshall, a younger brother of John Marshall.

[2] Judge White said *inter alia*: "Your Constitution is unique in legal documents. You have created a corporation whose officers will live practically forever. You have successfully evaded all franchise, conservation, and ad valorem taxation imposed on all other corporations by the laws of Louisiana. You have made the articles of incorporation so definite as to time, place, duration, terms of office, etc., as to compare favorably with the NIRA and all the alphabetical codes!"

Gladstone said something to the effect that the Constitution of the United States was the greatest document ever struck off at a given time by the brain and purpose of man.

Ist. The whitewash was not applied to the trees by themselves, but was applied by others without the knowledge or consent of the said trees.

2nd. The whitewash was applied, so far as I can learn, probably before the organization of the Society and certainly before there had been any effective notice given to said trees of the promulgation of the law, and an application of that law to the trees at this time would be *ex post facto* and therefore contrary to the constitution and statutes of the United States and of the State of Louisiana.

3rd. Crimes and offenses are divided into two classes, those which are *mala in se*, and those which are *mala qui prohibita*. The application of whitewash is not *mala in se* and is simply *mala qui prohibita*.

4th. Like a good many candidates for office or some membership in societies, the application of whitewash by admiring friends and constitutents has become an almost universal custom.

5th. Evil intent is of the essence of all crime, and the maxim:

> "Actus non facit reum, nisi mens sit rea—a crime is not committed if the mind of the person doing the act is innocent." (16 C. J., p. 74).

applies.

In my opinion there was no criminal intent on the part of the aforesaid oaks and it is my ruling that, for reasons above given, they are eligible to membership. I think, however, that when they are admitted to membership they should be admonished to carefully observe the whitewash rules of the Society and to grow in peace and sin no more. I further rule that a copy of this opinion be furnished to Dr. W. D. Haas, Oak Hall, Bunkie, Louisiana, as a guardian of the said oaks to serve as notice of this ruling.

(Signed) H. W. WHITE,
Attorney-General."

"THE PRESIDENT"

Under the Constitution that member of the Live Oak Society which has the largest circumference of trunk is declared to be President—holding office until superseded by a larger-trunked member. The first and only President thus far is the Locke Breaux Live Oak (35 feet), located on the right bank of the Mississippi River about four miles above Hahnville in St. Charles Parish. It may be discovered by looking just a hundred yards or so below the great steel tower of the electric "high line" that crosses the river at

Photograph by E. L. Stephens.

Live Oak at Oaklawn Manor on Bayou Teche near Franklin—The Barbour Estate. This tree holds straight out a forty-foot arm, day and night, without batting an eye.

the Bonnet Carre Spillway. This tree was named in honor of the late S. Locke Breaux, prominent citizen of New Orleans, long time President of the Board of Trade, who owned the tree at the time the Society was founded, and was first to call our attention to it. He took me there and we measured the tree and found it to be 35 feet around and 166 feet in spread, and he had a New Orleans photographer make some excellent portraits of it, which became the property of the Society. It is fitting, therefore, that appreciation be expressed, with a tribute to the memory of Mr. Breaux—the good and helpful citizen who gave the Live Oak Society its first President.

And it is gratifying to record that our President has fallen into beneficent hands. The new owner of the property on which this patriarch stands is a corporation—the Southern Dairy Products, Inc.—but it is controlled by a dynamic personality, no other than Leon Weiss, the Architect, builder of the State Capitol. And Mr. Weiss is a live oak-minded man, and fully appreciates the high office of stewardship that has fallen to him in this fortunate transfer of real estate. He says he has planned surgical rehabilitation of this tree, that may cost as much as five hundred dollars, and that arrangements will be lined up for its perpetual care. All honor to Mr. Weiss—and strength to his arm! He henceforth becomes an important factor in the Live Oak Society—and Attorney for the President!

THE TERREBONNE PRETENDER

Naturally, nearly everybody in the Live Oak Society wants to be President. So we hear on all sides of various aspirants trying to make the grade. The most notable case of the year was that of the Terrebonne Pretender. The Secretary of the Chamber of Commerce at Houma informed me they had a live oak in Terrebonne Parish that measured forty-four feet around! It was incredible, but had to be investigated; so next time we passed through Houma, we asked to be shown the prodigy. Mr. and Mrs. Randolph A. Bazet and Mr. F. P. Chauvin kindly volunteered to take me and Mrs. Stephens some eighteen miles down Bayou du Large to see it. It was quite a pilgrimage, by reason of bad going after starting down Frederick's Point, but we finally reached the big tree—and found its measure to be 32 feet! (They had laid their tape on the ground, to include part of the root-system, thus getting a figure much larger than that of the circumference of the trunk). But that is a venerable tree, and worthy of all praise. Its condition is deplorable, for its centuries of battle with tropical storms; but an oil field is developing very close by, and they say that plenty of oil money will be devoted to the re-

Photograph by E. L. Stephens.

The "Archangel" Live Oak in Paradise Grove. 1935.

habilitation of Frederick's Point Oak. Mr. Bazet, who is a Naturalist with boots on, carried a small spade in the car, which came in handy to dig us out of the bog two or three times, and especially to dig up some native orchids (*Ibidium odoratum, or "Ladies' Tresses"*) which his keen botanist's eye discovered on the way. That Terrebonne Pretender was at any rate the third largest live oak tree trunk we have yet seen.

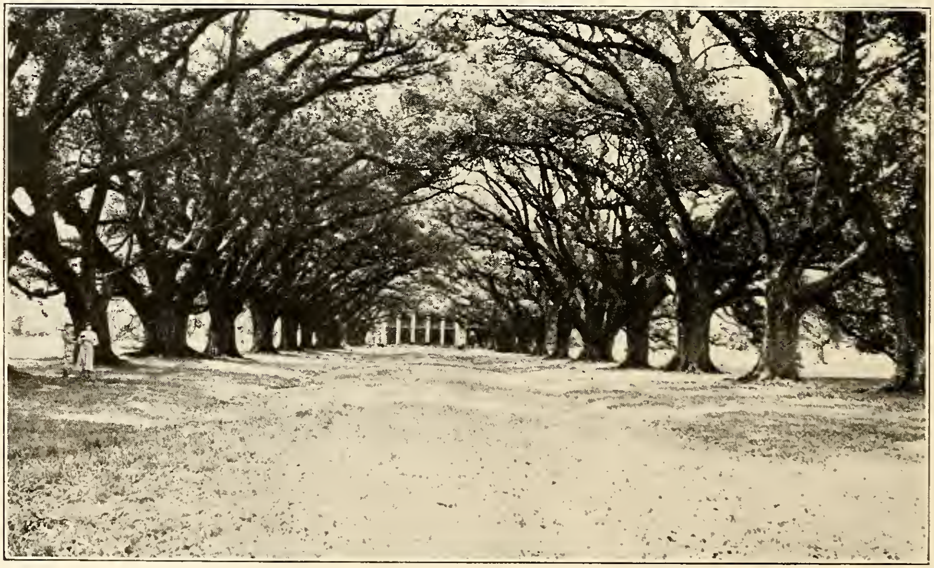
BALANINUS RECTUS

The annual dues of the Society are twenty-five acorns for each member, payable around New Year's. But because the trees have to use human attorneys to make their remittances, they are derelict in doing so. And very often an apparent remittance of 25 acorns turned out to be only 10 or 15—after throwing out those destroyed by weevils. This fact is worthy of special study by the Society. If you will pick up a pocket full of acorns and cary them a day or two, you will feel something clammy in the lot when you put your hand in the pocket—a little balled-up grub worm—ugh! (And, by the way, don't leave any acorns or other nuts in your overcoat pocket and leave the coat where rats can get at it; they will cut the pockets to pieces!) We referred this bug to George Claycomb, our Professor of Biology, and he says its name is *Balaninus rectus*—the acorn weevil, a member of the Curculionidæ family and the Order of Coleoptera (beetles). So there you are!

We have planted the first crop of Annual Dues in Plot Number One. Each plot its to have one thousand plants; one hundred in each of ten rows. The rows are three and a half feet apart, and the acorns are planted one foot apart in the row. The plot measures 100 feet by 35 feet. A chart is made showing exactly whose dues have been planted where. So the ancestry of each seedling can be duly vouched for. In a thousand years from now Descendents of members of the Live Oak Society may establish their authentic pedigree through the records (which undoubtedly will have been duly preserved!)

THE WORLD WAS WAITING

All through the year evidence has been coming in from far and wide that the world was not waiting for the sunrise, as alleged in a popular song, but for the forming of the Live Oak Society! Mr. Cassius A. Phillips, a lawyer of Elmira, New York, writes to nominate for membership the wonderful avenue of live oaks known as Oak Alley, situated on the Mississippi River in St. James Parish—which he describes as "the most beautiful thing of its kind I ever saw"; and I note in the tourist guide book, entitled "Know Louisiana", where it is stated that Oak Alley is "the most beautiful avenue of live oaks in Amer-



Photograph by Cassius A. Phillips.

Oak Valley, on the Mississippi River, right bank, as seen from the river front. Spacious Greek columned Colonial home of Mr. and Mrs. Andrew Stewart in St. James Parish. Said to have been built by Governor A. B. Roman in 1836 and the oaks planted at that time.

ica". Maybe that is true. Mr. Phillips goes on to say: "Oak Alley has twenty-eight trees, fourteen on each side, all large, perfect, and healthy. They are from fifty to sixty feet apart in the rows, and the two rows eighty-five feet apart. I measured one and found it to be 22 feet 8 inches, and think there are others over 22 feet in circumference. The ground between them is noicely graded and used as a foot walk. The whole alley from the mansion to the highway next the levee on the south side of the Mississippi River must be from seven hundred to eight hundred feet long, and the arch formed by the branches of the trees is most symmetrical and beautiful. I am informed that the house was built by Governor Roman in 1836 and the oaks planted at that time. The mansion itself is a fine specimen of the architecture of that period. It is square with eight plain round pillars on each side, with balcony running around the second story and all four sides alike, with ornamental gardens on the side." He also adds that while he and Mrs. Phillips were spending last winter in Louisiana, they visited the live oak avenues at St. Charles College, Grand Coteau, at Rosedown Plantation near St. Francisville, and at the Alphonse Prudhomme place near Natchitoches, and also Pine and Oak Alley near St. Martinville. In all of this—spending the winter in the balmy climate of Louisiana, reveling in the beauty of Louisiana bayous, lakes, and skies, and making this tour of the lovely live oak places in the State, Mr. Phillips has set an example that should be emulated by all free-lance residents of Elmira, N. Y., Oshkosh, Wis., Kankakee, Ill., and Kalamazoo, Mich., and all outlying stations round about and in between! And they would do it, too, if only they could be made to realize how lovely all this is!

Eminent Accessions to the Society

The Pakenham Oaks also came in for nomination—that lovely avenue at Chalmette, forever associated with the Battle of New Orleans. They were first recommended by Miss Florence Dymond, and later by Mr. Joseph B. Hubbard, of New Orleans. Mr. Hubbard says: "There are two rows, 37 on one side, 38 on the other, and one tree out of line, a total of 76 trees. The rows are 100 feet apart, and there is a space of 40 feet between trees." He measured eight of them, the first two being each 19 feet 11 inches around. Mr. W. B. Reily, Jr., of New Orleans, presents his unique multiple tree, the "Seven Sisters" at Lewisburg, across Lake Ponchartrain. I visited that tree, which might be judged to be the most imposing live oak spectacle in any one place in the State. It is 36 feet in circumference, but is evidently a cluster of six or seven trees all in one. Adjoining this place across the street is that of the late Frank B. Hayne, on which there is a noble live oak measuring more than 19 feet in circumference. In Natchitoches, Mrs. Samuel J. Henry presented the M. M. Breazeale Live Oak, believed to have been planted in 1827 or 1828. I found it to be 15 feet, 11 inches. The students of the History Class of the Hammond High School, with their teacher, Miss Janie Smith, sent the Hammond Live Oak, 20 feet, 7 inches. Mother Mary J. Lynch of the Sacred Heart College at Grand Coteau, who passed away in November, 1935, had only recently written of 63 glorious live oaks on the campus of that institution. Miss Margaret Thorne of Marrero presents "Grandpere", 29 feet, 4 inches, with a spread of 155 feet, and remarks that he will perhaps be a candidate for Third Vice-President! Other live oaks presented for membership are: Mrs. J. P. Cordill of New Orleans, the Country Club Live Oak, 15 feet, 7 inches; the Wesley Schriefer Live Oak, 26 feet, 8 inches, of Perry, Louisiana, near Abbeville, presented by Mr. Schriefer, its owner(the Stansbury home was built in front of this tree 150 years ago); Mrs. H. S. Palfrey of Franklin, the Franklin Oak, 22 feet, 3 inches. (The house on the property on which this tree stands was built by Governor Joshua Baker nearly one hundred years ago); Mrs. Albert Levert, St. John's Grove, two avenues of trees on that famous plantation near St. Martinville—one avenue of 18 trees and one of 22. Although the largest trunk measures only 12 feet, 3 inches, it is believed these trees were planted in 1829; Mr. August Catalano, the Jake Schaeffer Live Oak, 18 feet, at the corner of

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Frenchmen and Pelopidas Streets, New Orleans; Mrs. J. N. Jackson of Covington, the "Royal" Oak, 17 feet, 5 inches—more than 100 years old; Miss Jessie Smith of Franklin, the Smith Live Oak, 19 feet, 8 inches, a robustious veteran with a very marked bulge of excresence; Mrs. W. M. Bradley of Berwick, the Bradley Oak, 21 feet, 6 inches; Dr. P. M. Payne, of Napoleonville, the Napoleon Oak, 20 feet; Mrs. I. D. Norwood, of Norwood, the Bellehaven Oak, 19 feet; Mr. and Mrs. E. B. Dubuisson, of Opelousas, the Rosemary Oak, 13 feet, 6 inches; Mr. Joe Davis, of New Iberia, the Davis Live Oaks, one 21 feet, 1 inch, the other 18 feet, 2 inches; Dr. Ellis Sandos, of Metairie Ridge, New Orleans, the Lawes Live Oak, 23 feet, 6 inches; Miss Jennie Ford, of Welsh, the Lake Arthur Live Oak, 12 feet, which she says is reputed to be 140 years old; Mrs. W. M. Murphy of Tallulah, the Talla Bena Oak, 19 feet, 1 inch; "age well over 300 years" (well, you cannot always sometimes tell).

EVIDENCE ON RATE OF GROWTH

Mr. P. H. Fontaine of Kentwood contributes an interesting datum. He says: "In the summer of 1897 I measured the George Washington Oak in Audubon Park. Four feet from the ground its circumference then was 22 feet. Comparison of this with my measurement of the same tree on October 9, 1932, when I found it to be 28 feet, 6 inches around, shows that during that period of thirty-five years, this tree increased in circumference 6 feet, 6 inches—or, 78 inches. Dividing 78 by 35, we get an average annual increase of 2.23 inches, which approximates closely the annual growth of the eighteen live oaks on Southwestern campus that were set out January 1, 1901. Their average annual increase was 2.4 inches. And this figure was confirmed by the measurement I made of these same trees on January 1, 1936.

NOTES FROM MISSISSIPPI, ALABAMA AND TEXAS

Last fall I had a great live oak trip to Mississippi, through the courtesy of Mr. H. Flateau, and Mr. and Mrs. C. M. Carr. The Ocean Springs contingent, led by Mr. and Mrs. James R. Leavell, provided a sumptuous live oak feast. The live oak trees on the Mississippi Coast, centering around Ocean Springs and Biloxi, are unsurpassed anywhere, so far as we know. Many accessories to the Live Oak Society were listed, including the Friendship Oak, 14 feet, 7 inches, which Doctor Dick Cox showed me at his Gulf Park College; the DeLisle Oak, 24 feet, presented by Mr. Thomas Edwing Dabney; the Edwards House Live Oak at Ocean Springs, 13 feet, 3 inches; the Nelson Oak at Ocean Springs, 15 feet, 11 inches; the Grinstead Oak, 15 feet, 9 inches, near Pascagoula; and the Wallace Oak at Biloxi, 22 feet. This Wallace Oak is the greatest exhibit I saw on the coast. Its owner, Doctor James E. Wallace, turned out to be a former pupil of mine of some forty years ago. He told me that the man from whom he bought the place, Mr. W. M. Lampton, had refused to sell it to someone who intended to destroy that tree. The prospective purchaser had said: "I accept your price; but I'll need the space for building purposes, and will cut the tree"; thereupon Mr. Lampton called the deal off. All honor to him. The tree still lives and is his monument.

I had one dip into Alabama. I went to see the Bellingrath Gardens and Mobile's Azalea Trail. These are wonderful; but the real trail from Mobile to Spring Hill is really not so much an azalea trail as it is a live oak trail. Their greatest exhibit is their live oaks. If they don't know it, they should find it out and tell the world!

Texas is a great live oak state, but doesn't know about it. The only tree we heard about is already a member of the Society, under the name of "Bishop's Oak", 25 feet, 6 inches. Mr. J. W. Calhoun, Comptroller of the University of Texas, is a vitalizing force on the subject and is doing a great deal to make the citizens of Texas live-oak conscious. In the college paper he wrote an article from which I take this excerpt: "In Austin there must be 10,000 specimens of the live oak, but it is doubtful if one in fifty of the residents of the city has ever seen a live oak in all his life. To have merely had the image of a live oak on the retina of his eye is a long way from seeing. Seeing a tree is an intellectual, an emotional, a spirit-

(Continued on Page 30)

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PRODUCTION OF LOUISIANA'S MINERALS INCREASES IN 1935

OIL

Eight new oil fields and deeper productive sands in five old fields were discovered in Louisiana in 1935. As a result of the flush production of these thirteen fields added to the steadily increasing production in a number of older fields, this State produced a total of 48,625,550 barrels of oil in 1935, as compared to 31,646,024 barrels produced in 1934. North Louisiana experienced the discovery of one very large oil field, Rodessa, Caddo Parish, in 1935, while seven new oil fields were discovered and deeper productive sands were discovered in five old fields which heretofore had produced very little oil. North Louisiana produced 7,826,909 barrels of oil in 1935, while South Louisiana produced 40,798,641 barrels. South Louisiana produced 24,203,265 barrels in 1934.

GAS

Twenty-seven oil and gas fields produced 253,292,533,000 cubic feet of gas in 1935 as compared to 230,287,473,000 cubic feet of gas in 1934. The Monroe field of Ouachita, Morehouse, and Union Parishes, produced 163,376,378,000 cubic feet in 1934 as compared to 181,698,039,000 cubic feet in 1935. The production of gas in the Rodessa field increased to 22,346,119,000 cubic feet in 1935 as compared to 13,934,264,000 cubic feet in 1934.

SULPHUR

The accumulated production of sulphur in Louisiana passed the ten million mark in 1935. Two sulphur plants produced 373,343 tons of sulphur in 1935 as compared to 229,830 tons in 1934. The quantity produced in Louisiana in 1935 was greater than any year since 1923. Sulphur operations were abandoned on the Sulphur Dome, Calcasieu Parish, in 1925.

SALT

Four salt mines and two chemical plants produced a total of 777,391 short tons of salt in 1935. The four salt mines produced 510,369 short tons. Louisiana produced 566,591 tons of rock salt from four salt mines in 1934 and ranked fifth, among the salt producing States, in the total quantity of salt produced and first in the quantity of rock salt produced; the two chemical plants did not begin operations until 1935.

LIMEROCK

The output of limerock in Louisiana was 264,919 tons in 1935 as compared to 95,380 tons in 1934. There are two limerock quarries in Louisiana, one located on the Pine Prairie salt dome, Evangeline Parish, the other on the Winnfield salt dome, Winn Parish. These two plants shipped 175,901 tons of crushed rock used for road metal in 1935. In addition, to the crushed stone plant at the Pine Prairie quarry, there is also a lime plant. In 1935, 9,183 tons of lime were manufactured at the Pine Prairie plant as compared to 7,797 tons produced in 1934.

NATURAL GASOLINE

Twenty-two gasoline plants, operating in ten oil and gas fields in Louisiana, extracted 40,690,539 gallons of gasoline from 68,393,464,000 cubic feet of gas. As a result of the high gasoline content of the gas produced in the Rodessa field, the output of natural gasoline increased while the total quantity of natural gas used was less in 1935 as compared with the quantity of natural gas used in 1934. The Shell Petroleum Corporation erected a natural gasoline plant in the Iowa oil and gas field, Calcasieu-Jefferson Davis Parish in 1934. An average of 16 million cubic feet of gas were received daily under 50 pounds pressure from wells in the Iowa field and run directly to the absorbers where gasoline is extracted in mineral seal oil. This plant is the first of its type to be erected in South Louisiana.

CARBON BLACK

Carbon black is manufactured from natural gas obtained from the Monroe and Richland gas fields. In 1935, 64,676,636 pounds of carbon black was manufactured from 54,113,611,000 cubic feet of gas. This figure includes 47,397,926 pounds of channel black and 17,278,710 pounds of low quality gray black or retort black. There were 17 carbon black plants operating in the Monroe field and one plant operating in the Richland field. Louisiana is the second largest producer of carbon black— Texas is first. The average value of the carbon black at the plant in 1934 was .035 cents per pound and the average yield was 1.24 pounds per thousand cubic feet of natural gas.

There are two principal methods by which carbon black is produced: (1) impingement of natural gas flame on a comparatively cold surface; (2) incomplete combustion of natural gas in a chamber. The "cold" surface method is called "channel," and channel black is the most common type of carbon black. Channel black is superior in quality to the gray black or retort black but the yield usually is lower. The increase in the relative importance of channel black indicates increase demand for this product by the rubber industry. Sales of carbon black by manufacturers in the United States, amounted to 312,612,000 pounds in 1934. Thirty percent of this quantity was exported during this year. Of the domestic deliveries in 1934, 86 percent was consigned to rubber companies, eight percent to ink companies, three percent to paint and varnish companies, and three percent to companies producing miscellaneous products.[1]

IGNEOUS PEBBLES IN ST. BERNARD PARISH

An unusual and interesting discovery is reported by the party composed of Dr. R. J. Russell, Dr. F. B. Kniffen, and Mr. C. F. Dohm, who in the early part of last summer were engaged in the investigation of the geology and anthropology of St. Bernard and Plaquemines Parishes.

Scattered for a distance of several thousand feet along the seaward side of one of the southern islands of the Chandeleur group were found a suite of igneous, metamorphic and sedimentary pebbles, which were fairly well rounded and averaged about an inch and a half in diameter. Microscopic examination of sections of these pebbles ground to a thickness of 0.03 mm. revealed the following rock types: Granite, a silicic, coarse-grained igneous rock; rhyolite, a volcanic rock corresponding in chemical composition to granite; trachyte, a fine-grained volcanic rock; arkose, a coarse grained sandstone derived from the rapid disintegration of granite; and metamorphic derivatives of the above types.

Rocks of these types are foreign to Louisiana. The gravels of the northern Florida Parishes and hills west of the Mississippi floodplain are predominantly composed of chert, a type of rock apparently absent from the Chandeleur Island gravels.

In order to account for the occurrence of these pebbles several explanations are possible:

(1) Ballast from a ship, which seemingly feasible, may be discarded, due to the fact that ship ballast is usually larger in size and more or less homogeneous. Also, this island is fairly remote from shipping lanes.

(2) River ice, that is, transportation down river of material frozen in ice. This possibility is strengthened by occasional reports of such ice in the river at and below Baton Rouge. In considering river ice as a transporting agent, however, a rather careful investigation of the beaches of adjoining islands failed to reveal smiliar pebbles. Since there is no reason for believing that the eastwardly discharging passes carrying river ice would favor any particular island with pebbles, the possibility also seems unfeasible.

(3) Introduction by Indians, this is suggested by the occasional presenece of igneous rocks on middens of south Louisiana. The presence of Indians in the Chandeleurs in former times is unquestionably indicated by pot sherds found scattered along the beaches. Supporting this possibility is the fact that pot sherds were found along the beach of the island on which pebbles were found.

(4) Elevating action of salt domes. It may be that these gravels constitute a geological horizon at depth which has been elevated and subjected to erosion by the uplifting force of a possible salt dome. This might be confirmed by the encourtering of similar material in wells in the surrounding area.

A parallel situation has been observed at the Pine Praire salt dome, Evangeline Parish. Its occurrence has been explained in a manner similar to that suggested above.

At the present, none of the suggestions given above can be totally discarded or confirmed. It is hoped, however, that a study, which is now being carried on at Louisiana State University by C. F.

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[1] Mineral Yearbook 1935, U. S. Bureau of Mines, pp. 836, 838.

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Dohm, will throw light on this interesting question of occurrence and possible source of the pebbles.

Mc GUIRT PREPARING A REPORT ON THE TERTIARY BRYOZOA OF LOUISIANA

James H. McGuirt, Assistant State Geologist, spent the last two weeks of December in Washington, D. C., comparing determinations on the Tertiary Bryozoa of Louisiana with those of the tremendous collection of Dr. Ray S. Bassler, United States National Museum. The material is being collected for a report that probably will be published the latter part of the present year.

It was found that the Bryozoa of Louisiana are very similar to those described from North Carolina, Georgia, Florida, and Mississippi, as well as various other localities. It is quite possible that these fossils will be of much assistance for correlating the formations of Louisiana with those of other states in the Gulf Coastal Plain.

DR. FISK MAKING INTERESTING STUDY OF GRANT AND LA SALLE PARISHES

During recent field work carried on by Dr. H. N. Fisk on the geology of LaSalle and Grant Parished, a particular effort was made to determine the type and the geological age of materials underlying the Catahoula sandstone. Due to the lack of good surface outcrops, it was found necessary to drill holes through the zone of surface weathering to obtain samples fresh enough to contain a micro-fauna. During this field work several points of general interest were noted.

In LaSalle Parish most of the holes were drilled along the course of Funny Louis Bayou and its eastern tributaries. It was found that there is a valley fill of losely-packed, medium-grained sand extending to depths varying between 18 and 21 feet below the surface of the present flood plain. The valley fill has essentially the same width as the present flood plain. In Grant Parish a remarkably similar depth of valley fill was found along Bear Creek, western tributary of Little River south of Georgetown. The presence of the valley fill correlates very favorably with that in stream valleys noted along the northwestern margin of Catahoula Lake in the vicinity of Nebo and Robers. Present laboratory study of the sands indicates a large percentage of pyrite in almost all samples and may give an additional basis for correlation.

Also of interest is the relative depth to which weathering of the clays has extended. The uplands adjacent to the streams show two major zones. The upper one consists of a slightly sandy, badly leached, mottled gray subsoil which commonly extends to depths between 12 and 16 feet. The lower zone is marked by a concentration of liminitic material and, in some hole, by an accumulation of calcium carbonate nodules in only slightly altered lignitic clays. This zone, which extends to depths from 20 to 23 feet, is the zone of enrichment of materials derived from the leaching of the overlying subsoil and transported downward by ground water. In valley bottoms, no material from the upper zone was encountered. Generally, the bit of the drill passed from the loose-packed sand directly into the lower zone at a slight distance above comparatively fresh clays and sands. The observed facts indicate that the soils on the slopes have been developing throughout a long time during which the stream bottoms were cut and refilled to perhaps 20 feet or more.

The lignitic clays collected from material underlying the Catahoula sandstone and overlying the Danville beds seem to correlate with the lower lignitic clays of the Vicksburg formation in Catahoula Parish. These lignitic clays on close examination were seen to contain impressions of foraminifera and small pelecypods but with few actual shells remaining. On laboratory examination they were found to contain textularia and a few internal casts of other foraminifera. It is obvious that these lignitic clays are marine and it is probable that an excess of carbon dioxide in the ground water, due to oxidation of the carbonaceous material, caused the almost complete dissolution of calcareous tests.

Laboratory work is now in progress on a series of samples collected from outcrops of the Eocene Jackson formation in these parishes. It is hoped that several distinct fossiliferous horizons may be established which will greatly facilitate further field work and make possible a closer correlation with surrounding areas.

PROFESSOR CRAFT PRESENTS PAPER ON OIL AND GAS DEVELOPMENTS IN LOUISIANA DURING 1935

Benjamin C. Craft, Associate Professor of Petroleum Engineering, Louisiana State University, attended the Annual Meeting of the American Institute of Mining and Metallurigical Engineers, held in New York, February 17-21. Professor Craft presided at the Production Symposium and presented a paper entitled "Oil and Gas Development in Louisiana During 1935". He was honored by being re-elected Associate Vice-Chairman of Production of the Petroleum Division in which office he will again be in charge of the solicitation of authors for the domestic production papers to be presented at the 1937 Annual Symposium. The oil and gas fields of the United States are divided into thirty districts, the development in each district being reviewed at the Annual Meeting and the papers published in the Transactions of the Petroleum Division.

ST. BERNARD PARISH

A party composed of Dr. H. V. Howe, Dr. R. J. Russell, Dr. H. N. Fisk, Professor B. C. Craft and C. K. Moresi, visited eastern St. Bernard Parish on February 28 and 29. The party departed from the Department of Conservation's wharf, New Basin Canal, on the Ferol on the morning of Friday, February 28. Core borings were made at a point along Bayou La Loutre, southwest of Alluvial City, and a number of additional borings were put down in the Lawson Bay area. The party also visited two Indian Mounds near Grand Pass.

FISHING FOR FUN

(Continued from Page 14)

AND HOW ABOUT TARPON?

Well, just a few more words and you can go. Lots of foolish hullabaloo about tarpon. (Who wants a tarpon anyway? They are not good to eat.) Guides grin among themselves when they hear you fellows boast about the big ones you have hooked. But just the same, learn this: a tarpon never fights the line. He fights the hook. So do not jerk on him; do not pull hard. Let him have all the slack he wants. I have seen them jump straight up out of the water, like gilded arrows, and shake their heads like unruly horses, trying to shake loose the hook. So give him lots and lots of line. Play him; take it easy; this is no tug of war. Your line is no hawser. He will tear it—watch out. And if you are careful and a good fisherman, and are blessed with oodles of patience and a strong arm, you will be able to catch tarpon on a 36 cotton line, and a small, strong hook. No kidding. I have seen it done.

But I rather catch groupers any day. He has dead weight but no fighting spirit (like a shark). Use live crab and big hooks of the handforged type, curved inwards toward the stem. You can get them for about six bits on Decatur Street, by the river. Use stout wire leaders and about fifty feet of untarred 3/8-inch rope. It is the best way to fish them, I have found.

Fish out of a big boat. Tie your crab to the hook, but so that his claws and flappers are free to move. Or else hook him through the hindmost part, all the way through. Do not worry. A grouper has a big mouth. He could take a whole crab easily.

Forget the old rod and reel. It will only be in your way. At rising tide, during the warm months, around the old sunken Yuma a couple of miles out of Southwest (Burwood) Pass, you may mop up on them, if you are lucky. I know one fisherman who caught fourteen in a few hours. One of them weighed around five hundred pounds.

Do not use too much line. You will not need it. Groupers play out quick. Weight is their sole reliance. Get hold of a good-sized boat—nothing less than thirty feet, and high enough. Squalls hit quick and hard, you know. Make your boat fast to the mast or davit of the sunken ship. You have about eighteen feet of clear water to fish in. Be careful where you throw your hook. If you do not throw it far enough out it will catch on something and you will have to buy another. I lost four in one afternoon. Too far is no good either. The groupers hang around the wreck. But after the second or third hook you will learn.

Leave your rod and reel at home. You will only let out a lot of line, and then what is the sad result? The big fish will tangle it all up around some underwater part of the sunken vessel. Then all you could do is to cut the Cuttyhunk and curse —and wish you had listened to me.

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YOUR PART

Consult your teacher.

Ask that the purpose and plans of the Nature Guardian Club be explained to you and the class.

Ask for an application card.

Get a responsible person to indorse it, after proving that you fully understand the duties of a Nature Guardian.

Sign the application and mail the card postpaid, or give to your teacher, to send with cards from all the class.

OUR PART

We send the application card.

We send you a handsome badge, a certificate of membership, Nature Guardian pamphlets, and other literature.

This is all free, and is carried on with the purpose of instilling in the children's minds a knowledge of Louisiana's wild life and a thorough understanding of its economic value to the State.

It also aims to develop individual humanitarianism. Even within this short time an amazing improvement has been made in the mental attitude of our young folks toward the conservation and protection of Louisiana's natural resources.

EDITORIAL

April, 1936.

My Dear Guardians:

We have been designated by a distinguished speaker as living in the "Conservation Center of the Southland." We are proud of this fact—as we have every right to be—but we often wonder how much greater our wealth of natural resources would be if conservation had been practiced in Louisiana when our forests, game and minerals were practically untouched.

We are also proud of the fact that Louisiana was one of the pioneer states in adopting methods for the protection of our rich heritage against exploitation and waste.

Even before the Civil War, Louisiana was considering the protection of her migratory wildfowl; in 1870 she had regulations governing the oyster industry; in 1902 the Legislature created the Oyster Commission; and in 1912, when the Conservation Commission was made a Department of the State, Louisiana's conservation measures began to function throughout the Commonwealth, and our people began to appreciate the necessity for such regulations.

Today, the Department of Conservation of the State of Louisiana, is outstanding among like departments in other states. All Guardians should appreciate the efforts that the Department has made to reach this high position. We need the help of each boy and girl in the State in order to maintain it. When we realize how easily a species of bird or animal is wiped out of existence, we are truly thankful for Louisiana's sane and fair conservation laws for their protection, replenishment and management of our natural gifts. If the need for such laws had been realized earlier in our Nation's history we would still have the Passenger Pigeon and the Heath Hen.

And so, my dear Guardians, we need your loyal help in our fight for greater conservation, everywhere, but especially in our own dear Louisiana.

With hearty good wishes,

THE EDITOR.

Letters come in from all our members. How we wish we had space to print them all. Here is one from Tillie Hale, whom we are glad to welcome into our midst:

New Iberia,
Jan. 23, 1936.

Dear Editor:

I would like very much to be a member of your Nature Guardian Club. I read all about the Guardians. I shall promise to do all that is within my ability to preserve Nature in "Lovely Louisiana." Will you please send me an application blank? I thank you.

TILLIE HALE.

Like everyone else, we like to have our efforts appreciated. This letter pleased us very much:

McDonogh No. 19 School,
New Orleans, La.

Dear Editor:

We want to tell you that we enjoyed our visit to the Department of Conservation. We want to thank the Department for showing us the pictures and for telling us about the birds and animals that live in Louisiana. We enjoyed looking at the exhibits. We have signed the cards to become Louisiana Nature Guardians.

Very truly,

THIRD GRADE "B."

Walter Stuart, a seventh grader of the Sacred Heart School, Baton Rouge, shows his appreciation of the mockingbird in the rhyme which follows:

THE MOCKINGBIRD

Many birds are in the air,
Some of these are very rare;
Although the one that I like best
Is very sly and full of zest.
The mockingbird is truly mine,
His songs are very fine.
His wings are colored very bright,
He's pretty gray with breast of white.
When the birds begin to come,
Then the world begins to hum;
This gay bird sings through the night
And fills our hearts with sheer delight.

Evelyn's poem was crowded out last fall, when it was received. But here it is:

FALL

By Evelyn Denton

A hint of fall is in the air,
The leaves are falling down;
Red and gold over the brown.
A gentle hand is reaching out,
Dressing the earth in a brown dress,
Putting its children away to rest.
A little white cloud goes sailing by,
Shaking its finger and winking its eye;
Saying, "Winter will be here by and by."

Three little girls want to join our Club. Their names are Patsey Dee, Marlys Hagen, Jane Mayer, and their teacher is Miss Margaret Lee Berge, of the Blair School. But—they did not say where they live, so we cannot send them application cards. I hope that they will see this notice and write to us.

Such a bundle of lovely letters! They come from a 6th "A" Class in a Lafayette, Louisiana, school. Their teacher writes as follows:

P. O. Box 383,
Lafayette, La.

Dear Editor:

When we organized our Nature Guardian Club I was made supervisor of the 6th "A" group. The children were very anxious that you should know about it. I allowed them to write to you during a language period. They understand that you are a very busy person, and couldn't possibly write to all of them, much as you would like to do so, so they will not expect to hear from you.

Thank you for your interest and for the interest that you inspire in the work.

Very sincerely yours,

MARGUERITE STECKLER.

We thank all of these little Guardians.

And now we must say good-bye to the Guardians. Please send in your poems, themes and stories. We shall try to print them all.

GOVERNOR-ELECT R. W. LECHE

(Continued from Page 1)

great seal of Louisiana, 'Union, Justice and Confidence.' 'Union' in our endeavors for the advancement of all the people. Equal 'Justice' for everybody and 'Confidence' that our State will proceed to greater glory in the next four years."

It is most gratifying to the Department that Governor Long, Governor Allen and Governor Noe, all of whom were actively interested in and conspicuously associated with the conservation of Louisiana's natural resources, are succeeded by Governor-elect Leche who like them is an ardent conservationist. The citizens of Louisiana can be well assured that under his administration the vast and valuable natural resources of the State will be properly used and properly guarded.

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INCA DOVE IS ADDED TO THE LOUISIANA AVIFAUNA

By Ambrose Daigre
Departmental Taxidermist
Louisiana Department of Conservation

Many readers of these brief articles might conclude that all my discussions are focused on birds of great rarity or birds which occur in Louisiana under the most unusual conditions. To some extent I do, but if I were given the time to write and the opportunity afield I feel that my "chumming" with the birds would bring before you many points and incidents of interest. I do not always have the time to write nor much of an opportunity afield, so, consequently, I will have to satisfy myself by telling you only about my new acquaintances among the birds.

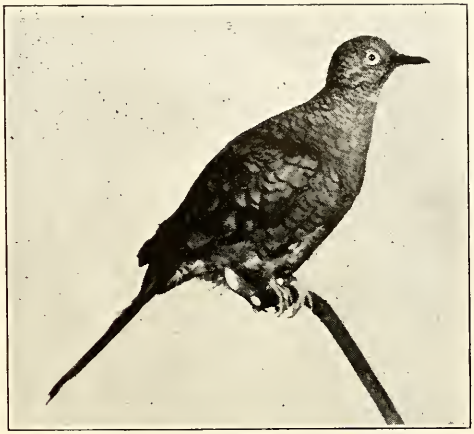
The bird taken into discussion now is the little Inca Dove, scientifically termed *Scardafella inca,* and was first classified by Lesson. My brother, Joseph Daigre, was lucky enough to take the first and only official record of an Inca Dove in Louisiana, December 28, 1935, according to that renowned ornithologist, Dr. Harry C. Oberholser, of the United States Biological Survey.

This single specimen was collected in Rapides Parish closely adjacent to Alexandria, Louisiana.

Although an account of this record was published in practically every newspaper of the State there were many interesting details, about which people question, that did not appear.

This specimen was collected on our home place at Alexandria. Like many of the older homes of Rapides Parish our place is located in the alluvial Red River bottom section, a good bird country. On this place every hedge-row marks some memory to me. I particularly remember the hedges where I often scratched my nose peeking in bird's nests and the old barb wire fences where I so often snagged my breeches.

While home over the Christmas holidays my brother, Joseph, like me, wandered out into the fields to see if everything was the same, and to observe a few of the winter migrants. He had been gone only a short while when he came rushing back to the house for the collecting gun, exclaiming that he had seen a strange dove. We both went to the scene of observation and immediately found the dove in a pear tree. It seemed to be greatly excited, probably due to a strange environment. The first thing to attract my attention was the elongated tail. When he flew we noticed the white outer tail feathers. He lit again and proceeded to feed on some form of weed seed. This dove flew several times more before my brother chanced to collect him.



"THE INCA DOVE." ***Scardefella inca inca*** **Lesson**

At the present time the specimen is in Washington, D. C., where it is undergoing a more detailed observation. We expect it back in the near future and those interested may see the bird on exhibition in our Royal Street Museum.

In general appearance this small dove impersonates a personality of great gentleness, but when we become personally acquainted with him we find that in reality he is a great little fighter. During the nesting season they wage terrific battles among themselves, but seemingly nobody ever gets hurt.

The Inca Dove is a close relative of the once popular Passenger Pigeon now extinct. Both the Pigeon and Dove belong to the scientific order Columbiformes.

They seem to be monogamous in their affections. The eggs number one to two and are immaculately white. Both sexes take equal part in nest building, incubation and care of the young. The nestlings are nourished with a fluid secreted in the crop of the adult. Later they are fed with partially digested grain.

This order of birds feeds almost exclusively on grain. They are unique among feathered creatures because of the manner in which they drink. The mandible is immersed to the nostrils and water is taken in, in a continuous draft.

Permit me to synopsize the disappearance of the once popular Passenger Pigeon. To give a rough idea of the abundance of these birds, Audubon states that in the autumn of 1813 he left his house at Henderson, on the banks of the Ohio, a few miles from Hardensburgh, to go to Louisville, Ky. He saw that day what he thought to be the largest flight of Wild Pigeons he had ever seen.

The air was literally filled with them, and the light of noonday sun was obscured as if by an eclipse. Before sunset he reached Louisville, fifty-five miles from Hardensburgh and all this time Pigeons were passing in undiminished numbers. This continued for three days in succession. The people were all armed and the banks of the river were crowded with men and boys incessantly shooting at the Pigeons as they flew lower in passing the river.

The atmosphere during this time was strongly impregnated with the odor of the birds. Audubon estimated the number of Pigeons passing overhead in a flock one mile wide for three hours, traveling at the rate of a mile a minute, allowing two Pigeons to the square yard, as one billion, one hundred and fifteen million, one hundred and thirty-six thousand.

My father told me that Pigeons often broke huge limbs from trees in a roosting place adjacent to Pineville, Louisiana.

In 1850 a depletion in numbers among these birds became noticeable. Audubon, who knew the havoc made among these Pigeons by man, satisfied himself to believe that although their numbers were gradually diminishing, it was almost impossible to exterminate the Pigeons, since they often quadrupled their numbers during the year and always doubled them.

A combination of many factors brought about the extermination of these beautiful birds, but the chief cause was the professional pigeoner who took the squabs for market.

After the year 1860 there were from 400 to 1000 professional pigeoners, according to estimate. These men migrated with the Pigeons, keeping in touch with them by telegraph. Whereever the birds chanced to nest, the pigeoners were there to slaughter the offspring, giving the Pigeon no chance for propagation.

The last great slaughter of Pigeons on record was in New Yeork State in 1870. The squabs of a complete flock that nested in Missouri were killed in April. The flock then moved to Michigan and all the squabs were again slaughtered by the professional pigeoners. The Pigeons then migrated to New York State and nested, followed again by the pigeoners. It is said that tons of squabs were shipped to the New York market and that not less than fifteen tons of ice were used in packing them. This was going on all over the country and still people wonder what caused the "mysterious" disappearance of the Passenger Pigeon.

We had a similar case right here in Louisiana in relation to the both species of Egrets. Plume hunters had dwindled the numbers of these beautiful birds to the verge of extinction. It is only during the nesting season that these herons don the elegant plumes of nuptial dress. Naturally, the Egrets were slaughtered during these periods, leaving the nestlings to die from starvation.

Thank God that legal steps were taken in time, and today these birds are coming back.

CITY PARK BASS

By John G. McCloskey

New Orleans

The second annual artificial bait fishing contest was held in New Orleans City Park on Sunday, February 23, 1936, from daylight until 10 A. M. Forty-eight men and women competed for the valuable prizes which were awarded.

I. S. Edell walked off with first prize. His three pound black bass was the largest fish caught. Mrs. John G. McCloskey, one of the three women entries, won third prize with a two pound black bass.

This contest was staged so that greater interest in artificial bait fishing might be developed. The large rambling lagoon in City Park gives to the anglers of New Orleans an ideal fishing ground which, in my opinion, is surpassed by very few places in the State. Two and three pound bass are taken almost daily, while an occasional five pounder is not unusual.

The question has come up about the possibility of fishing out the lagoon, but this seems quite impossible.

A record was kept last year of the number of fish caught and it showed that less than 500 black bass were taken, a small amount compared to the several thousand fish which the Department of Conservation of Louisiana releases in the park lagoon each year. This, along with the natural breeding of the bass, keeps the lagoon well stocked at all times.

The United States Government, through the P. W. A., is developing the City Park Extension, which when completed will give to New Orleans a park extending from City Park Avenue to Lake Pontchartrain, taking in Spanish Fort.

A series of lagoons are in the process of construction and they will eventually be connected to the lagoon in the old park. When this work is finished it will furnish a continuous lake with about 15 miles of shore-line.

What a fishing stream this is going to make! No longer will it be necessary to journey many miles for good black bass fishing, for within 15 minutes drive from any section of New Orleans, the fisherman can be in his boat and ready to

(Photograph through the courtesy of the New Orleans Item.)

Mrs. John G. McCloskey, left, winner of the third prize, and Mr. I. E. Edell, winner of the first prize in the fishing contest herein described.

start. It is getting to be a popular place with business men. Leaving their offices at five o'clock, they still have time to put in a couple of hours fishing before dark.

The possibility of this park becoming a wild life sanctuary for all species of birds, including water-fowl, is an attractive one, not only from the point of view of the direct benefit to wild life, but also because a sanctuary area frequented by large numbers of birds in a metropolitan center would serve as a demonstration area of great educational value to the public.

IN MEMORIAM

(Continued from Page 2)

State of Louisiana was best preserved, continued and increased through State agencies rather than through local agencies.

Governor Allen won the confidence of all and enjoyed the endorsement of all the major factions of the State of Louisiana. When the late Senator Long went to Washington and when in the following election Governor Allen was selected by the people of the State, he set a firm hand to the task of carrying on the progressive policies that Senator Long had begun. Among the many great benefits that the people of Louisiana came to enjoy under Governor Allen's administration were the free poll tax which widened the franchise, the homestead exemption which permitted the common man to own a two thousand dollar homestead without paying taxes and the debt moratorium that enabled so many citizens of the State to weather the economic storm.

Governor Allen died at the height of victory. Chosen by the people of the State of Louisiana to represent them in Congress at Washington, he had received as Senator-elect a mandate that in its sweeping majority bespoke the confidence and the respect that he had won in the minds and hearts of his fellow citizens.

BURIED TREASURE

(Continued from Page 8)

Corresponding to these various messengers, we have corresponding methods used in geophysical search for ore or oil, namely, (1) electrical, (2) electro-magnetic, (3) seismic, (4) gravitational, (5) magnetic, (6) radio-active, and (7) geothermal. Of these methods, the magnetic, gravitational, and seismic are the principal ones used today in the oil industry.

Nowhere are the potential contributions of pure research to geology better than in investigation of earth physics, that is, geophysics. With her usual generosity, Nature almost continuously produces for our interpretation and analysis series of varied experiments in our greatest laboratory, the EARTH. And nowhere in the world has Nature provided a better laboratory for man to apply this method than in the Gulf Coastal Prairies.

Geophysical prospecting found its first practical applications in the salt dome exploration in Louisiana and Texas, and these states still rank foremost in the application of this method. Strangely enough, today, Louisiana's institutions of learning do not train scientists in geophysics. Surely then, something materially should be done to encourage its introduction and expansion in the universities of our state.

However fascinating the pursuit of applied geology and geophysics to the search of buried treasure may be, it must be admitted frankly that it has its drawbacks. In the first place, it has been a common practice to surround the science with the "hocus pocus" of technical phraseology and mathematical gymnastics. Secondly, in so far as the finding of buried treasure is concerned, its aims are purely material. Its unblushing object

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is to find and make wealth. It looks for treasure, and plenty of it, in order to make the search for it profitable. And thirdly, strange as it may seem, the ultimate goal of geophysical prospecting is to provide a tangible substance for the purpose of that inescapable scourge which follows man from the cradle to the grave, TAXATION. Nothing in the world has served society so mightily as the opportunity to base its existence on monies derived from taxes, royalties, and leases on Nature's buried hoard.

No other area of equal size in the world has an equal or greater supply of the basic minerals used so extensively in the chemical and allied industries than the State of Louisiana. We have not only inherited a large portion of the salt of the earth, but our Creator has added to it as langniappe, many other minerals and mineral fuels, principally oil and sulphur.

To Louisiana's supply of buried treasure,—the triumvirate, SALT, OIL, and SULPHUR,—add a plentiful supply of natural gas and cheap water transportation and one finds within her domain all the economic essentials for the progressive development of those industries that either directly use the raw materials, or fabricate from them innumerable by-products.

We live in an age that demands metals, salt, sulphur, oil and many other mineral substances, particularly the latter because of the extensive use of combustion machines.

In fact, the very peace and security of the nations of the world today hinges on that magic substance which propels machines of peace and war.

Who can tell how the future course of men and nations will be affected by Louisiana's vast supply of "BURIED TREASURE"?

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ANNALS OF THE LIVE OAK SOCIETY

(Continued from Page 20)

ual experience. To stand under one of Austin's patriarchal live oaks and look up through its top, noting the fine sturdy trunk, the numerously branching limbs, the interstitial twig effect, the fine, dark, cool foliage—and especially to do this in winter on one of our mild, clear days—is to have a rare and valuable experience. At such a time one feels a kinship with the Druids and a fondness for and fellowship with the tree that takes it out of the class of inanimate objects and endows it with personality. This is to 'see' a tree."

Paradise Grove

The Mississippi Enthusiasts were the first to break loose and amend the Constitution. They preambled and whereased and resolved that the Acting Secretary should also be Treasurer. They wanted some way to legalize their unauthorized remittance of thirty dollars to the Society to use for "such purposes as the Acting Secretary saw fit." Thus we became *Acting Secretary-Treasurer*, and immediately deposited this remittance in the Paradise Grove Fund. The Society has no other use for money at the present time, but will gladly be sponsor to this worthy project which was first suggested in the Conservation Review one year ago. The plan is to buy Paradise Grove and give it to the State for a public park, to be improved and maintained by the State Parks Commission, which was created by Act 91 of 1934. We already had a dollar, which was sent us by Mr. Allen Eaton, of the Russell Sage Foundation, Albany, New York, and specifically dedicated to this Fund, and he promised another dollar for each $99 we could raise—until we reached his limit! Then Mr. and Mrs. Joe E. Mouton, of Lafayette, gave a dollar, followed by another from Mr. G. P. Sledge, of Abbeville, and Jeff Caffery, U. S. Minister to Cuba, sent $2.50; so we are getting quite a pile.

Doctor J. R. Oliver went with me last month to see the owner of this incomparable grove, Mr. Alexis Voorhies, of New Iberia, and his son, Fran-

SOLARI'S

Everybody Shops

—at—

SOLARI'S

cis. They agreed to sell for six thousand dollars. Mr. Voorhies purchased the Grove in 1886 and has held it for fifty years, refusing to cut it up or sell small parts. In the times of the Anse La Butte oil boom he refused $10,000 for it. He has always wished to hold it intact for its value as a public park. Now is about the right time for this consummation. The grove is on the left bank of the famed Bayou Teche, adjoining the town of Breaux Bridge. It has 83 live oak trees on it, the biggest one—the "Archangel"—measuring 20 feet in circumference of trunk. There are forty-seven points of view from which anyone walking under trees can realize that there is no other live oak exhibit in the world that can surpass this one for beauty and wonder. Doctor Ellsworth Woodward, our greatest art teacher in these parts for fifty years, says he has been everywhere on the planet except Timbuctoo, and has never seen any grove so beautiful—not even in Tempe or the dales of Arcady.

It stands to reason, of course, that the town of Breaux Bridge should pay half of the cost of this proposed park. They may find it hard to realize, because they had had this grove all the time; it has been right there, but they have scarcely seen it! Life is like that. But now that citizens of New York, Abbeville, New Orleans, Chicago, Lafayette, Mississippi, and Ministers to foreign lands, are calling special attention to their wonderful possession, perhaps they will see it. They are going to have to vote a small tax soon to buy a new fire engine; so maybe we can get them to add on a small amount, sufficient to finance a goodly part of the cost of the park. Mr. James R. Leavell is going to help us raise the balance. He is a Chicago banker, but I understand they have quit letting the bankers there just take the money out to apply to any fanciful purpose! Still he says he has friends in the big bus lines that will help. (You see, the buses will be bringing tourists in droves to see this grove, as soon as they hear about it!) Then Mr. Maurice Heymann is going to help us. He is Merchant Prince of Southwest Louisiana (Advt.). He is not yet "sold" on this propect, and says he could buy a hundred-acre farm at Breaux Bridge with that much money.[3] But, anyway, he will help us—and it *is* a fact that when he puts his hand to the plow, a "right smart o' plowing" will be done. So look out, friends of the Live Oak Society, for the final accomplishment, bye and bye, of this first great undertaking of your valiant organization.

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[3] The ordinary commercial way of buying real estate is at so much per acre, but in buying groves of live oak trees, some rate per tree or per grove or per kilowatt of beauty-effect will have to be devised.

THE TWISTED MEMORIAL

(Continued from Page 6)

of the Garden District's majestic dignity. High on gnarled boughs of ancient Druid oaks, its lavender clusters sway fantastically on fragrant spring breezes. A lovely old vine, planted around 1845, in what was then the City of Lafayette, Jefferson Parish, still survives in the New Orleans Dispensary's garden, on Annunciation Street, just off Felicity Road. Another splendid vine adorns the Louise Home at Margaret's Place, but the most magnificent Wistaria in New Orleans, is one that grew, for more than a half-century, in an open alley, between two Poydras Street buildings, one of which standing nearly a hundred and twenty-five years, witnessed the city's progress since the days of Caldwell, Crossman and Peters, when the Faubourg Sainte Marie outstripped the Vieux Carre, socially and commercially. Several years ago, when the buildings were renovated and incorporated into one, the proprietors, rather than destroy the vine, built a corridor around it by covering the alley with a skylight. It was thought that this enclosure might stunt the Wistaria's growth, but on the contrary, it thrived and bloomed more beautifully. The trunk, measuring over fourteen inches in circumference, rises in this glass-covered hallway, while the roots extend far out under the street, near the old market site. Its branches pass through an especially made hole in the skylight. Each spring, this wonderful Wistaria, cherished and nurtured by three generations of the same New Orleans family, praised and admired by world-famous celebrities, spreads its

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fragrant lavender blanket over courtyard and galleries.

Despite its loveliness, even in sunlight, there is something melancholy about a Wistaria vine; under darkness of night, the pale racemes, acquire a weird aspect, creating a ghost-like atmosphere. Yet, it glorifies the crudest, rustic structure. A dead tree will serve as an effective support for its rambling branches. A spur-pruned vine adds to the attractiveness of a trellis, loveseat, arched gateway or that almost extinct piece of garden architecture for which the Irish name "greenan" seems most appropriate—the latticed pavilion or summerhouse, once the joy of lovers and ladies who sewed fine seams. If placed centerly and allowed to run in all directions, Wistaria, with very little training, will soon cover a lengthy arbor. From an artistic standpoint, the long arbor creates a lovely vista, if constructed so that the vanishing point of its parallel depth lines falls somewhere in or beyond water. When there is no natural water scene to use, an interesting effect is achieved through either a lily pool or a wall fountain.

Wistaria, generally conceded to be purely decorative, will serve one practical purpose. The trunk and limbs, when heavy enough, supply a light wood for inlay cabinet work. In England, where it was also introduced in 1816, and in some parts of our country, from the color and shape of its seed, the vine is known as the kidney bean tree. (A "kidney bean" in Creole Louisiana, is something one cooks on Monday, for luck, if superstitious, and serves with rice on Friday, when fish is beyond one's means!) Australia, very appropriately, calls it the grape-flower vine, and as "glicinia", its colorful bloom endures for a brief season in Italy and Spain. Careful research revealed no sentimental meaning for Wistaria. The pea family, of which it is a member, indicates an "appointed meeting", while the sweetpea, a counterpart of its single flower, means "departure". In the physical sense, both sentiments are applicable to this vine, for after meeting and embracing an object to which it clings, it departs to pursue its reckless, meandering ways, weaving an intricate maze of graceful garlands through swamp and woodland.

Although a celebrated anatomist, outside his particular field of endeavor, Dr. Caspar Wistar's name is scarcely known, but the genus dedicated to his memory is a familiar garden feature in all warm parts of the world. A beautiful twisted memorial, that, with the advent of springtime, turns even a broken-down shed in the shabbiest little backyard into a haven of beauty.

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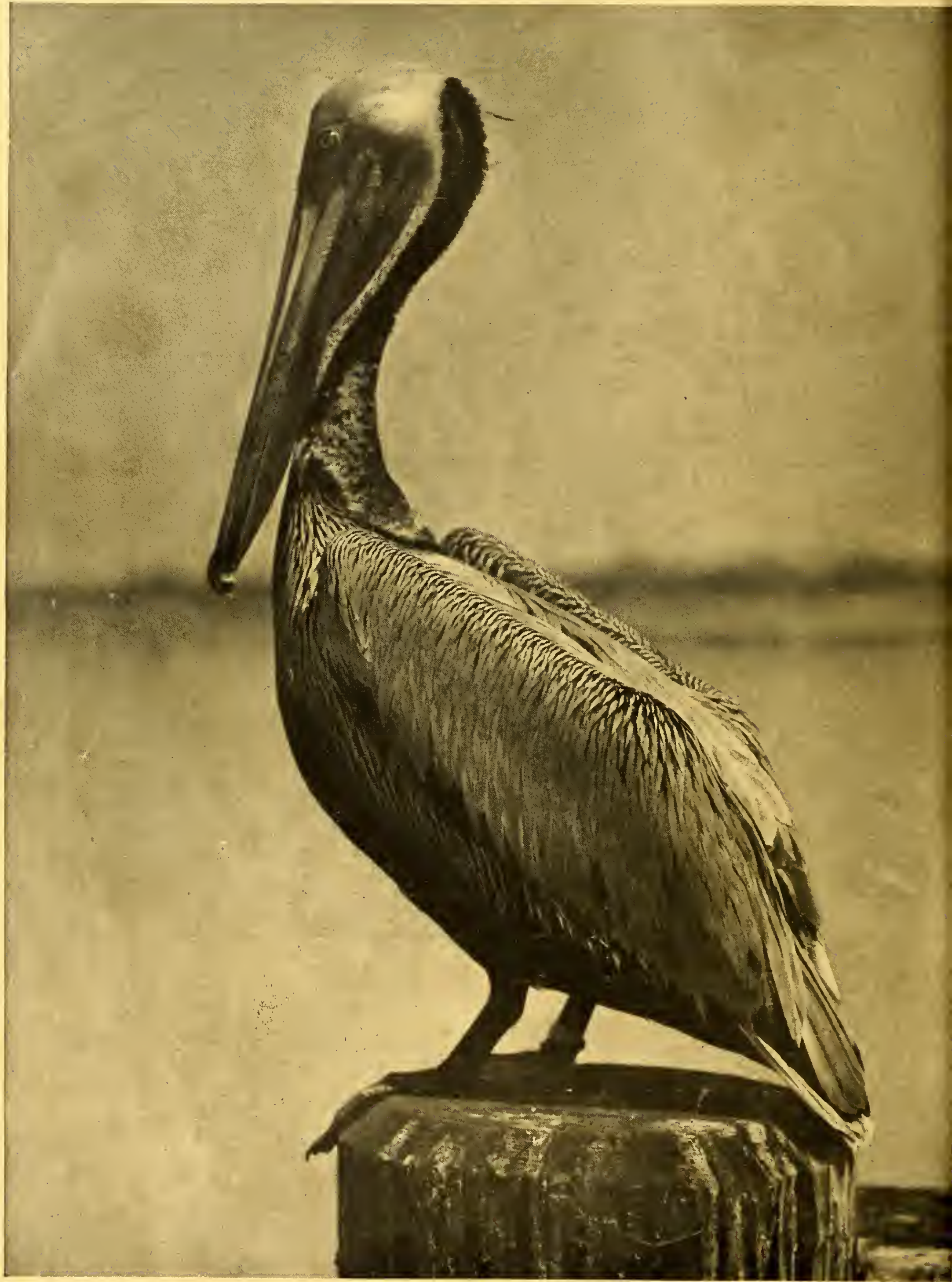

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